# SURGICAL OBSERVATIONS

ON

### TUMOURS,

AND ON

### LUMBAR ABSCESSES.

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# SURGICAL OBSERVATIONS.

An Attempt to form a CLASSIFICATION of TUMOURS according to their Anatomical Structure.

THE observations, which I have had an opportunity of making in St. Bartholomew's Hospital, on the various tumours which occur in the human body, have been so numerous, that I have almost felt myself under the necessity of forming some classification of those diseases. This classification I have attempted according to their anatomical structure; which allows at the same time, of a corresponding arrangement of those practical remarks that have been promiscuously collected. I have long felt so sensibly the advantages resulting from an orderly arrangement of this extensive subject, that I have taught it for some years in my Lectures in VOL. IV. the

the manner exhibited in the following pages. I am far, however, from being satisfied with the method which I have adopted; but it is the best that I have been able to devise; and, at least, it has this utility, that it admits of a number of important cases being arranged in a perspicuous manner, and prevents that obscurity which a total want of order necessarily creates.

My motives for laying this paper before the public are; first, a conviction, that an extensive knowledge of this subject, such a knowledge as would lead to an attempt at classification, and to ascertain the peculiarities which characterise the different species of tumours, can only be obtained by those who have very ample opportunities of obser-But it is probable that, when the subject in general has been surveyed, and its parts pointed out, those parts may be discriminated and examined with accuracy and advantage, by persons who have not had opportunities of contemplating the whole. 2dly, The minds of medical men having of late been laudably excited to investigate the nature

nature of cancer, in hopes of discovering something serviceable in that dreadful disease, it becomes right to remark, and it will appear from the following account, that there are many local tumours and ulcers, as intractable in their nature, and destructive in their progress, as cancer, which are liable to be confounded with that disease, but which ought to be distinguished from it, before any progress can be made in this difficult part of medical science. The society for the investigation of the nature of cancer have enquired about the anatomical structure of that disease, and about other disorders which have a resemblance to it. In the present paper I have attempted to reply to such interrogations, as far as my knowledge enables me. It appears to me, that, in order fully to investigate any subject with advantage, a great deal of collateral knowledge is required, which serves, like light shining from various places, to illuminate the object of our researches. I am not without hopes that this paper will tend to point out the required distinctions, and furnish such collateral knowledge.

In

In engaging in a new undertaking, I am likely to expose my own deficiencies of information; and by adopting a new and perhapsinjudiciousarrangement, and employing new and perhaps unfit terms, I may lay myself open to criticism and censure. I am not unwilling, however, to encounter these risks, when I have it in view to bring a difficult and interesting subject fairly before the public; in hopes that by exciting the attention and engaging the labours of many persons, it may, at length, acquire that perfection of which it is susceptible, and which could never be brought about by the exertions of a few individuals.

The subject of tumours, occupies a considerable space in the works of the antient writers on medicine. They seem, however, to have considered the subject, rather with regard to its name than its nature; for we find a great variety of dissimilar diseases collected, I cannot say arranged, under the same general title. The error has descended to us, and even in Dr. Cullen's Nosology we find diseases

diseases of arteries, voins, glands, tendons, joints, and bones, brought together under one order, and designated by the same name of tumours. Some of these also are merely enlargements of natural parts; whilst others are entirely new productions, having no existence in the original composition of the body. We have, I believe, sufficient knowledge of the nature of these diseases to class them more scientifically; and as this has not yet, as far as I know\*, been done, I shall endeavour to supply the deficiency.

In the definition which I mean to give of tumours, I shall trespass as much against the usual import of the word, as nosologists have hitherto done in their classifications against the nature of the disease. For I shall restrict the surgical signification of the word "Tumour" to such swellings as arise from some new production, which made no part of the

<sup>\*</sup> Plenck published, 1767, a work intitled "Systema Tumorum," which I have not seen, but I conclude that it does not resemble the present attempt; since no arrangement, like that which I have made, is to be met with in the Encyclopédie Methodique.

original composition of the body; and by this means I shall exclude all simple enlargements of bones, joints, glands, &c. enlargements of glands are however included in the definition, as they are found to be owing to a tumour growing in them, and either condensing the natural structure, or causing the absorption of the original gland. Sometimes also the disease of the gland seems to produce an entire alteration of structure in the part; the natural organization being removed, and a new-formed diseased structure substituted in its stead. In either of these cases the disease of the gland is designed to be included in the definition; and the practical remarks which follow will equally apply to the same kind of diseased structure whether it exist separately by itself, or occupy the situation of an original gland. The structure of tumours is also a part of morbid anatomy which deserves to be examined; since (as it did not come within the scope of the undertaking) it has not been fully discussed by Dr. Baillie in his very valuable treatise on that subject. Yet as he has given representations of glandular parts enlarged by a diseased structure

structure of an entirely new formation; so I shall have the advantage of referring the reader to his accurate and expressive representations of some of those appearances which it is my purpose to describe. There is an observation of this judicious and accurate writer which I shall take the liberty of inserting, since it justly appreciates the degree of utility of investigations like the present: he observes, "that the knowledge of morbid structure does not lead with certainty to the knowledge of morbid actions, although the one is the effect of the other; yet surely it lays the most solid foundation for prosecuting such enquiries with success. In proportion, therefore, as we shall become acquainted with the changes produced in the structure of parts from diseased actions, we shall be more likely to make some progress towards a knowledge of the actions themselves, although it must be very slowly."

The incipient state of tumours will naturally first engage our attention; and those, which perhaps form the best example and illustration of the subject, are such as B 4 hang

hang into cavities from the membraneous surfaces which form their boundaries. The cause of tumours having a pendulous attachment attracted the attention of Mr. Hunter, who made the following remarks on the formation of one on the inner surface of the peritoneum, as is related by Mr. Home in the Transactions of a Society for the improvement of Medical and Chirurgical Knowledge, Vol. i. p. 231. cavity of the abdomen being opened there appeared lying upon the peritoneum, a small portion of red blood recently coagulated; this, upon examination, was found connected to the surface upon which it had been deposited by an attachment half an inch long, and this neck had been formed before the coagulum had lost its red colour." Now had vessels shot through this slender neck, and organized the clot of blood, as this would then have become a living part, it might have grown to an indefinite magnitude, and its nature and progress would probably have depended on the organization which it had assumed. I have in my possession, a tumour, doubtless formed in the manner Mr. Hunter has described,

scribed, which hung pendulous from the front of the peritoneum, and in which the organization and consequent actions have been so far completed, that the body of the tumour has become a lump of fat, whilst the neck is merely of a fibrous and vascular texture. There can be little doubt, but that tumours form every where in the same manner. The coagulable part of the blood being either accidentally effused, or deposited in consequence of disease, becomes afterwards an organized and living part, by the growth of the adjacent vessels and nerves into it: When the deposited substance has its attachment by a single thread, all its vascular supply must proceed through that part; but in other cases the vessels shoot into it irregularly at various parts of its surface. Thus an unorganized concrete becomes a living tumour, which has at first no perceptible peculiarity as to its nature; though it derives a supply of nourishment from the surrounding parts, it seems to live and grow by its own independent powers; and the future structure, which it may acquire, seems to depend on the operation of its own vessels. When 5 . 40 the

the organization of a gland becomes changed into that unnatural structure which is observable in tumours, it may be thought in some degree to contradict those observations: but in this case the substance of the gland is the matrix in which the tumour is formed.

The structure of a tumour is sometimes like that of the parts near which it grows. Those which are pendulous into joints, are of a cartilaginous or osseous fabric; fatty tumours frequently form in the midst of adipose substance, and I have seen some tumours growing from the palate, and having a slender attachment, which in structure resembled the palate. Sometimes, however, they do not resemble in structure the parts from which they grow. The instance just mentioned, of the pendulous portion of fat growing from the peritoneum, will serve as a proof: the vessels, which had shot into it, made the tumour into fat, whilst the neck was of a fibrous and vascular structure. I have seen osseous tumours unconnected with bone or periosteum; and indeed, in general, the

the structure of a tumour is unlike that of the part in which it is produced. Therefore we seem warranted in concluding, that in many cases the nature of the tumour depends onits own actions and organization; and that, like the embryon, it merely receives nourishment from the surrounding parts.

If, then, the coagulable part of the blood be from any cause effused, if the adjacent absorbents do not remove it, and the surrounding vessels grow into it, the origin of a tumour may be thus formed. It may be right to reflect a little on the causes which may occasion a deposition and consequent organization of the coagulable part of the blood; as such reflections throw light on the nature and growth of tumours, and lead to the establishment of principles, which are applicable to tumours in general. The deposition of the coagulable part of the blood may be the effect of accident, or of a common inflammatory process\*, or it may be the

CASE.

<sup>\*</sup> It will probably be useful to illustrate this subject by the recital of a case:—

the consequence of some diseased action of the surrounding vessels which may influence the organization and growth of the tumours.

In the former cases, the parts surrounding the tumour may be considered simply as the sources from which it derives its nutriment, whilst it grows apparently by its own inherent powers, and its organization depends upon actions begun and existing in itself. If such a tumour be removed, the surrounding parts, being sound, soon heal, and a complete cure ensues. But if a tumour be removed, whose existence depended on the disease of the surrounding parts, which are

### CASE.

A medical practitioner bruised the upper part of his thigh against the pummel of a saddle, in consequence of his horse starting. The bruise and slight inflammation attendant on this accident soon disappeared, but after some months, he perceived a small tumour, which gradually increased, till it acquired a considerable magnitude. He came to London, and had it removed. It was an adipose tumour, and had a distinct capsule inclosing it, formed by the condensation of the cellular substance in which it had grown.

still

still left, and this disease be not altered by the stimulus of the operation, no benefit is obtained: these parts again produce a diseased substance, which has generally the appearance of fungus, and, in consequence of being irritated by the injury of the operation, the disease is in general increased by the means which were designed for its cure. It appears therefore that in some cases of tunours, the newly formed part alone requires removal, whilst in others the surrounding substance must be taken away, or a radical cure cannot be effected.

There is yet another circumstance deserving attention, before I proceed to the particular consideration of the subject; which is, that a tumour once formed, seems to be a sufficient cause of its own continuance and increase. The irritation which it causes in the contiguous parts, is likely to keep up that increased action of vessels which is necessary to its supply; and the larger it becomes, the more does it stimulate, and of course contribute to its own increase.

Suppose

Suppose then a tumour to have formed, and increased; it will continue to grow and to condense the surrounding cellular substance, and thus acquire for itself a kind of capsule. Tumoursaremore closely or loosely connected to the surrounding parts; which circumstance seems to depend upon the degree of stimulus which they occasion, and the inflammation which they thus excite. This irritation perhaps may be the cause why some tumours, which are slow in their first increase, grow rapidly after they have acquired a certain size.

These preliminary observations will be referred to, when the different kinds of tumours are described. When the history of different kinds of tumours is spoken of, there will be frequent necessity to advert to the effects of medical treatment upon them; it therefore seems right to premise a few words upon that subject.

It can scarcely be doubted that when tumours form and grow, there exists an increased state of action in the adjacent vessels, and the first curative intention in these diseases will therefore be to repress as much as possible this unusual exertion of the vessels, which gives rise to the formation of a tumour, and, by its continuance, causes its increase.

I know of no local measures to diminish an increased or inflammatory action of any part of the body more rational in theory, or more efficacious in practice than those of taking away the two great causes of animal actions, the blood and heat of the disordered part. The former is generally accomplished by means of leeches applied in its vicinity, which should be repeated as circumstances indicate; and the latter, by the application of folded linen, wetted with sedative lotions, by which a continual evaporation and constant abstraction of heat is kept up from the surface of the skin. effect of this last mode of treatment is much more considerable than at first sight might be supposed. It operates on parts far beneath the surface. As heat is so transmissible

missible a substance\*, so in proportion as the temperature of the skin is diminished by evaporation, it derives heat from the subjacent parts, and thus are their morbid actions lessened. If by such means the growth of a tumour be suspended, another curative indication naturally arises, which is to promote the absorption of the new formed substance.

- \* Though this expression may not be correct, the idea which is designed to be conveyed by it, will, I believe, be understood.
- + The regulation of the temperature of diseased parts, seems to be an important object in the treatment of local diseases; and it is very possible, that by producing evaporation from the surface we may chill them. therefore, ought to be apprised, that our object in the use of evaporating washes, is merely to prevent an unnatural degree of heat. It is not necessary that the washes should be applied cold to accomplish this object. A chilly sensation imparted to a portion of the skin may affect the whole surface, and produce that affection which we call a cold. In many cases a bread and water poultice seems to me the best application we can employ both with a view to abstract superfluous heat, and on account of its soothing properties. It is indeed a local warm bath, and, like the bath, it induces a gentle perspiration from the surface.

This indication is generally attempted by the use of stimulants, such as frictions with mercurial ointment, pressure, and electricity, or by means which also excite some counter irritation, as rubefacient plasters, solutions of salts, blisters, and issues. Both reason and experience equally demonstrate the impropriety of using the stimulating plan till the disease is first tranquillized, and in a degree subdued. It is reasonable to expect that stimulating measures will increase the actions which are going on in the diseased part; and experience proves that diseases are often increased by those very means which, had they been employed at a proper time, might have effected their cure. may be elucidated by a fact which is, I believe, generally known and admitted, that if a blister be applied for the cure of a pleurisy before evacuations are made use of, and the activity of the disease be thus checked, it it aggravates the disease; if afterwards, it speedily effects a cure. If a tumour or any local disease be for a time benefited by stimulating discutients, and the diseased actions recur in it with a degree of activity; it is VOL. IV. better better to desist from this latter plan of treatment, and adopt again the former one, till the disease is by such means rendered inactive.

I am so well convinced of the necessity of attending to the time and circumstances in which these remedies are applied in order to give them their real efficacy in the cure of local diseases, that I have been induced to dwell longer on this subject than may perhaps to some seem necessary.

When a blister is made permanent, or a seton or issue is made in the vicinity of a disordered part, it is in fact producing a new but curable disease, in order to detract from an old one, over which we have less controll. But here the same observations apply. should not produce a new disease till the active state of the original one is diminished, and till it is, as it were, rendered dormant; for otherwise the irritation of the intended remedy will rather tend to the aggravation than the cure of the disorder; it will also increase the febrile disturbance of the constitution, by adding to the causes of irritation. It should also be borne in mind, that the intended intended remedy is a disease of our own creating; and if it be a painful one, that it may, by disturbing the constitution, do more harm in this way to the original disease than good by its counter-irritation.

Such are the local means of treating tumours, as well as other local diseases, and to these I shall have occasion to refer. I cannot speak of the general means usually employed to operate on these disorders without entering into a long, and I think, an unnecessary discussion.

In attempting a classification of tumours, I shall suppose that they may be made to constitute an Order in the class of local diseases in nosology; and the meaning of the word may be restricted, in the manner suggested, to substances of new formation, which made no part in the original structure of the body; the order may then be divided into genera; and the first genus may be denominated from its most obvious character, (that of having a firm and fleshy feel,) Sarcoma, or Sarcomatous tumours.

This genus contains many species, to a description of which I next proceed. The first

of which I shall treat, being apparently composed of the coagulable part of the blood, rendered very generally vascular by the growth of vessels through it, without having any noticeable peculiarity in their distribution, may therefore be called

Common Vasular, or organized Sarcoma.

The names by which I have distinguished the different species of sarcoma have been objected to, because they are derived from internal circumstances, and not from any information, which can be acquired prior to an operation. I have not, however, been able to devise any better mode of denominating these tumours: for all the species must agree in the external characters, those of an increase of bulk, and a fleshy feel. If, however, an arrangement of tumours were once made, so that the history of each species could be particularly remarked, we might perhaps be able, from this circumstance, to form a probable opinion of the nature of the tumour, and of the mode of treatment which it would require; and, by adverting to the structure of the removed tumour after after an operation, we might determine whether it would be right to remove or leave the contiguous parts. It is designed, then, to include under this title all those tumours which appear to be composed of the gelatinous part of the blood, rendered more or less vascular by the growth of vessels through it.

The vessels which pervade this substance are, in different instances, either larger or smaller, more or less numerous: they are distributed in their usual arborescent manner, without any describable peculiarity of arrangement. This kind of tumour seems to be the most simple in its nature; many, perhaps all, of the varieties of tumours, were at first of this nature. The fatty tumour lately mentioned was doubtless at first a common vascular substance; but the vessels secreted fat in the body of the tumour, whilst the neck underwent no such change.

They are such tumours, then, as are organized throughout, but without distinguishable peculiarity of structure, that are meant to be considered under this title. This

structure is met with not only in distinct tumours, but likewise in the testis, mamma, and absorbent glands. In the testis I have seen the vessels, very numerous and small, dispersed through every part of the tumour. In the mamma they seem to be rather large than numerous, and the organization appears less complete.

When this kind of tumour has attained a considerable size, the superficial veins appear remarkably large; on which account, together with their curiously meandering course beneath the skin, they cannot fail to attract attention. Perhaps the weight of the tumour compresses the deeper seated veins and obliges the blood to return in larger quantities through those nearer the surface; or perhaps these vessels undergo a kind of symphathetic enlargement; for they do not appear to be distended by the blood which they contain.

These tumours are generally dull in their sensation; enduring even a rough examination by the hand, and electric shocks, without becoming painful. I suspect that it is this kind of sarcoma, which sometimes, though rarely,

rarely, suppurates; but as, when that event takes place, even partially, the rest of the substance is, in general, speedily removed by absorption, I have had no opportunity of ascertaining this circumstance.

These tumours generally grow till the skin is so distended that it ulcerates, and exposes the new-formed substance; which, being as it were obliged to inflame, and not being able to sustain disease, sloughs and falls out; sometimes portions seem to be detached, and come away without sloughing. In this manner is the disease occasionally got rid of; but such is the constitutional irritation attending this process, and the disgusting feetor and frightful appearance of the part, that the surgeon generally recommends, and the patient submits to its removal at this juncture.

As cases will probably convey more information in less words than description or narrative, and as they identify the kind of disease which is meant to be described, and inform, as it were by by example; I design to relate one or more cases of each kind of c 4

tumour, and thus curtail as much as I can my description of them.

### CASE I.

A woman, between forty and fifty years of age, was admitted into St. Bartholomew's Hospital, on account of a considerable tumour which had grown on the inside of the knee, and had so concealed the tibia, that it could not be felt. She remembered it when of the size of an egg, but could give no information to our inquiries, whether in that state it was fixed to the bone, or moveable upon it. It measured two feet in circumference, and had been gradually increasing between three and four years. The veins were large, and formed an appearance like network on the surface.

As the tumour advanced in size it had gradually prevented her moving about till it entirely confined her to her bed. In this situation it was not painful till within half a year before her admission into the hospital; when, from the sense of distension of the skin, and the inflammation induced in that

part,

part, she became restless and feverish, and lost her flesh considerably. At length, the skin ulcerated, and the exposed tumour inflamed and sloughed at different times, so as to leave a cavity in it of the size of a pint-bason. From the sides of this cavity there was poured forth a most copious and fœtid discharge: she had frequently lost blood from the vessels laid open by ulceration or sloughing; and, on her admission into the hospital, she had a confirmed hectical fever through weakness and irritation.

The state of the patient's health, the magnitude of the tumour, the uncertainty of its origin, (for it was supposed to have arisen from a diseased bone) made amputation appear the only means of preserving life. Upon an examination of the amputated limb, which was previously injected, this tumour was found to have no connection with the bone or joint upon which it lay. The lower part of the tumour was covered by a thin capsule, made apparently of condensed cellular substance, and it was loosely connected to the parts on which it lay; but on the surface

face of the tumour next the skin the capsule firmly adhered to it in consequence of the inflammation which had taken place. The substance of which the tumour was composed appeared to have been originally of a coagulable nature, and the vessels which ramified through it, appeared to be rather large than numerous; yet this appearance might have arisen from an imperfect injection.

This single case is sufficient to convey all the general information on this subject, which I have obtained. It is unnecessary to add parallel instances, and I am unwilling to load the account with minute particulars, lest they should obscure the principal facts. Probably from the want of knowledge I may have included, without discrimination, many varieties in this species of tumour; and, perhaps, further observations will furnish more specific distinctions in these diseases. The subject is but begun; and the difficulty of the investigation will, I hope, apologize for the small advances which I have been as yet able to make.

## Adipose Sarcoma.

This is a very common species of sarcomatous tumour, and is formed most commonly on the front, or back part of the trunk of the body, and sometimes in the extremities.

Although it is generally formed in the midst of cellular and adipose substance, there can be little doubt that its origin is like that of other tumours: that, in the first instance, it was coagulable lymph, rendered vascular by the growth of vessels into it, and that its future structure was the consequence of their arrangement and actions. That this was the case in the pendulous tumours mentioned in the preliminary observations (page 9) seems to be certain,

The distinct origin of such tumours is made sufficiently evident, by observing, that they have always a thin capsule of common cellular substance, which separates them from the contiguous parts. This capsule seems merely to be the effect of that condensation

of the surrounding cellular substance, which the pressure of the tumour occasions. As the growth of adipose tumours is regularly and slowly progressive; as nothing like inflammationingeneral accompanies their increase; their capsules afford a striking instance of an investment acquired simply by a slight condensation of the surrounding cellular structure, unaffected by inflammation. The capsule which is very thin, adheres but slightly to the tumour: and the principal connection appears to be by vessels, which pass through it to enter the substance of the tumour. These vessels are so small, and the connection so slight, that no dissection is required to separate it: for when the tumour is to be removed, the hand of the operator can be easily introduced between it and its investment, and it is thus readily turned out of its capsule.

The vessels of adipose tumours are neither large nor numerous; they are readily torn when the separation alluded to is attempted, and they scarcely bleed after it has been effected. It is natural to suppose when the greater

greater part of a large tumour has been detached, and no vessel of consequence has been divided, that some principal nutrient artery will afterwards be met with; and this supposition produces an unnecessary hesitation on the part of the operator. There is indeed no species of tumour that can be removed with so much celerity, with such apparent dexterity, or with such complete security against future consequences, as those of an adipose nature. In some instances, however, when inflammation has been induced, the capsules even of these tumours are thickened, and adhere so as not to be separable without difficulty from their surface. To certify this remark I may mention the case of a man who had an adipose tumour growing beneath the skin of the nates, in which the pressure from sitting occasioned inflammation, and this kind of tenacious adhesion of the capsule to its surface. circumstance made the separation of the skin from off its surface difficult, when the extirpation of the tumour was undertaken; but, after that was accomplished, the base of the tumour was lifted up and removed with great facility. 11

facility, and almost without the use of the knife. The under part of this tumour had not a regular surface, but projected in portions so as to have a lobulated appearance; a circumstance which is not unfrequent, and which deserves to be mentioned. From the occurrence of inflammation likewise these tumours sometimes adhere to the contiguous parts; of which circumstance the case which I am about to relate affords a curious example.

I have known several fatty tumours growing at the same time, in different parts of the body of the same person.

I shall take the liberty of giving an account of the extirpation of a very large tumour of this kind; as the case is particularly intereresting, and shews that the circumstances usually met with are unaltered by the size of the tumour.

### CASE. II.

A healthy middle-aged man had a tumour formed apparently beneath the fascia of his thigh,

thigh, which he remembered when it was no bigger than an egg. It had increased by a regular and slow progress, in little more than four years, to a very great magnitude, such as may be easily supposed, when it is told, that it weighed, after removal, between fourteen and fifteen pounds. It had been attended with no pain during its increase, and was now only inconvenient by its bulk.

The surgeons who first saw this patient would not undertake any operation, feeling an uncertainty as to the nature and connections of the tumour; though they all agreed that, when the skin gave way, there was but little chance of the poor man's surviving the consequences of such an exposure. Considering from the history of the case, that the tumour must have been removable in the first instance; believing, from its freedom from pain and irritation, that it was of no malignant nature, and that an operation was only alarming from its magnitude; I recommended the patient to see the most eminent surgeons in London, before he returned in despair to the country, from whence he had come

come for relief. Mr. Cline gave him more direct hopes of success than he received elsewhere, and he went into St. Thomas's Hospital to submit to the operation.

When Mr. Cline had divided the skin and fascia of the thigh, the tumour was easily turned out; but it had unfortunately acquired a ligamentous adhesion to the orbicular ligament of the hip, which could not be separated without, in some degree, injuring that part. This attachment appeared to be about half an inch in breadth and about one fourth of an inch in length. The cause and nature of this firm attachment to the ligament of the hip, seems the only circumstance peculiar to this case, or requiring explanation. It appears to me easily accounted for, by supposing the tumour to have compressed and irritated that part, and thus to have occasioned an adhesion, at first of a glutinous nature, but which afterwards becoming organized, had assumed the structure of the parts, from whenceit proceeded. In like manner tumours growing near, and compressing the surface of bones, frequently occasion a degree of exostosis.

of

No hæmorrhage followed the removal of the tumour. The wound at first appeared disposed to do well; but the patient became feverish, and it did not unite by adhesion. There were also some symptoms indicating inflammation about the hip-joint. The man, however, surmounted these difficulties, and, after some months, was discharged from the Hospital.

There were two circumstances in the operation attended with danger; one, the size of the wound, which could hardly be expected to unite by adhesion, on account of the irritation which, from its extent, must be created; the other, this unlucky attachment to the ligament of the joint. It is to be lamented, that a disease, so readily removable in its commencement, should have been suffered to acquire a magnitude, which alone was a source of danger.

Since the publication of the first edition of these observations, I have seen an abscess form in the substance of an adipose tumour. Earthymatter was also deposited on the sides

VOL. IV. D

of the cavity which had contained the pus. I have also seen osseous matter deposited within the substance of an adipose tumour.

### Pancreatic Sarcoma.

The next species of sarcomatous tumour, which I shall describe, resembles in appearance the pancreas, and, on that account, may be named (if the etymological import of the word be not considered as prohibitory) Pancreatic Sarcoma.

This new-formed substance is made up of irregularly shaped masses: in colour, texture, and size resembling the larger masses which compose the pancreas. They appear also to be connected with each other, like the portions of that gland, by a fibrous substance of a looser texture. This kind of sarcoma, though sometimes formed distinctly in the cellular substance, more frequently occurs in the female breast, perhaps originating in lympathic glands; and, as cases of this kind sufficiently illustrate its nature and progress, and appear more interesting in proportion to the importance

portance of the parts concerned, I shall select some instances of it, in this part, to shew those circumstances which seem most important in the history of this species of sarcoma.

I shall, however, first relate a case of this diseased structure occurring in the lympathic glands beneath the lower jaw, and afterwards speak of its progress, when it takes place in or near to the female breast.

#### CASE III.

A man came to St. Bartholomew's Hospital from Oxfordshire, with three diseased lympathic glands, each of the size of a very large plum. They were situated beneath the basis of the jaw, upon the mylohyoideus muscle. They resisted the attempts which had been made to discuss them; and had not been removed from an apprehension that a dangerous hæmorrhage would take place in the operation. The glands had gradually, though very slowly, attained their present magnitude, for the disease was of fifteen years' duration. The surrounding parts were

not affected. Sir Charles Blicke undertook and accomplished the removal of the diseased gland, the structure of which was exactly such as has been described. This case is related in the first place, as it shews most clearly the usual characteristics of this species of diseased structure; which are those of slowly increasing, of not being prone to inflammation; or tending to suppuration.

It may not be improper to mention, though it is irrelevant to the present subject, that, in the operation, the external maxillary artery was unavoidably divided. It did not, however bleed immediately after the operation, so that this circumstance was not perceived; and the edges of the wound were brought together by one suture, and accurately and firmly closed by sticking-plaster. Shortly afterwards the patient felt a sense of choking, which increased to a state almost of complete suffocation. Indeed it seems probable that this might really have happened before any one could have come to his assistance, had not some of the plasters fortunately given way, and afforded some discharge

to the blood: for a very great quantity of coagulated blood had collected within the wound, and compressed the trachea and pharynx to a greater degree than would readily be believed by those who had not witnessed the fact. This circumstance is mentioned to shew the impropriety, when there is any chance of hæmorrhage, of closing wounds so strictly by sticking-plaster, as to allow no exit to any blood that may be effused; and it is particularly unsafe in circumstances similar to those of the foregoing case. If the hæmorrhage be but small in quantity, and the escape of the blood be prevented, it separates the sides of the wound which should lie in close contact, and thereby prevents their immediate union; and, if it be considerable, it deserves to be remarked, that, so far is the compression which the confined blood must make on the arteries, from which it was poured, from stopping the bleeding, that it seems to be a stimulating cause, exciting an hæmorrhagic action in the vessels. This remark is manifested by the present, as well as by many other cases in surgery.

This kind of sarcoma frequently forms amidst the mammary gland, a little above and on that side of the nipple, which is next to the arm. Its appearance would lead one to suppose, that it was a lymphatic gland which is usually found in that situation, converted into this structure; but sometimes it seems like a distinct tumour. It is the appearance of the capsule which invests the tumour, that has led me to form these opinions.

These tumours lessen in bulk if judiciously treated; but if they cannot be entirely dispersed, they increase gradually: and when they have attained some consderable size, they are generally removed, from apprehension of the consequences which they might produce, if they were suffered to remain. If the tumour be indolent, and if it increases slowly, the parts surrounding it, and the glands in the axilla are not affected. But some tumours formed by this kind of diseased structure, which do not unfrequently occur in the breast, are, contrary to the ordinary properties of such diseases, of a very irritable nature,

nature, occasioning severe and lancinating pain, and producing an inflammatory state of the skin which covers them, so that it becomes adherent to their surface. They also irritate the absorbents leading to the axilla, and produce enlargement of their glands. From these circumstances I suspect that these tumours may be frequently considered as These extremely irritable tumours do not generally attain any considerable magnitude; they are reduced in size by the treatment which has been mentioned, but increase again, when it has been desisted from. Sometimes a tumour of this nature, which was irritable in the first instance, becomes indolent after the activity of the disease has been checked by proper local applications, but in other cases the irritability of the disease recurs. The pain is lancinating, and so severe as to make the patients feverish, grow faint frequently, and lose their muscular strength. When the axillary glands become affected, one generally swells at first, and is extremely tender and painful; but afterwards the pain abates, and it remains indurated; another then becomes affected, and runs through the

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same course. I remember an instance where many of the glands attained a considerable magnitude. The case was considered as cancerous, and the tumour, which was of the structure that has been described, and also someofthe diseased glands, were removed, but several were left, and the patient did well.

#### CASE IV.

A young woman, who lived with me as a servant, suffered for more than two years severe pain, and considerable constitutional indisposition, from a tumour of this kind, which had caused inflammation and enlargement of three of the axillary glands. Being assured that it was not carcinomatous from its diminution under surgical treatment, I waited in hopes that some beneficial change would spontaneously take place; but, at last, by her request, and with the coinciding opinion of Sir Charles Blicke, I removed the original tumour, leaving the diseased glands in the axilla. The source of irritation being taken away, the glands gradually subsided, and the patient soon grew fat, and became, and remained remarkably healthy. known many similar cases.

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When the above account was written, I was unacquainted with those facts recorded in the first volume of these Observations, which shew that considerable tumours of the breast and neighbouring parts, which resist all locally repellent measures, may be dispersed in many instances readily, by correcting a disordered state of the digestive organs. I have no doubt, but the occasional fits of pain and languor, which were experienced in the case just related, were the effects of irritability of constitution, and might have been relieved, and prevented, by means that would have given tone and tranquillity to the system.

## CASE V.

A lady about twenty-seven years of age, had a tumour between the breast and the axilla, which had gradually increased during a year and a half to the size of a goose egg. Its growth had been accompanied with occasional fits of pain. She had a much furred tongue, and costive bowels. As no discutient remedies had checked the progress of the tumour; and, as some apprehensions that

its nature might be malignant were entertained, I was requested to remove it.

After I had doneso, on dividing the tumour, its structure was found to be of that kind which I have described in this section; which induced me, for the comfort of the patient, to assure her, that the disease was not cancerous, and therefore not likely to return. The patient resided in the country, and when she left town, I exhorted her to be very attentive to her diet, and to the regulation of the functions of her digestive organs. After two years she came from the country much alarmed, by a good deal of thickening irritation and redness, which had taken place in the parts wounded in the operation; all of which, however, soon subsided, under the application of a bread and water poultice during the night, and the use of alterative doses of mercury. In another year she returned again frightened by the occurrence of a swelling, attended with uneasiness, on the side opposite to that on which the operation had been performed. The swelling was situated between the breast and the axilla, parallel and contiguous

guous to the margin of the pectoral muscle. It was as big as a small walnut; and, I have no doubt, was caused by the tumefaction of an absorbent gland. It was dispersed by the same treatment that had been instituted for their itation which had taken place about the wound. About three years have now elapsed, and though she has been occasionally alarmed by pains, yet no other manifestations of disease have appeared.

As I have preserved no notes, and do not perfectly recollect any case of a tumour of this structure occurring in a distinct form, unless some of those about the breast may be so considered; and as I wish to shew that all these diseases occur distinctly as well as in glands, I shall, as an instance of a pancreatic appearance in a distinct tumour, refer the reader to the curious Case published in London by Dr. Bouttatz of Moscow, of a tumour which grew beneath the conjunctiva of the eye, and protruded it between the eyelids. The tumour was seven inches long and three inches and a half in circumference, and weighed two pounds and a half. The structure,

structure, which is represented in a plate, answers correctly to that which I have denominated pancreatic; and it had also the ordinary characters of this diseased structure, which are those of slowly and regularly increasing, not being prone to inflammation, nor tending to suppuration. The tumour, as might be naturally supposed, was closely connected with the tunica conjunctiva against which it pressed, but the base of it was easily elevated from the cornea which still retained its natural transparency, and the patient regained his sight on its removal.

# Cystic Sarcoma.

The next species of sarcomatous tumour, as it contains cells or cysts, may be named Cystic Sarcoma; and this species will be found to comprehend varieties This species sometimes occurs as a distinct tumour, but is more frequently met with in the testis and ovary. In one kind of disease of the testis, the part is perhaps enlarged to six times its natural size, and consists of a congeries of cells, containing a serous fluid; their

their size is that of currants or grapes, but of an oval figure. The sides of the cysts are so vascular as to be made red by injection; and sometimes the injection is even effused and tinges the contents of the cyst. Dr. Baillie has favoured us with an elegant and correct representation of this disease, in his Series of Engravings intended to illustrate the Morbid Anatomy of some of the most important Parts of the Human Body\*. I have known this alteration of structure the consequence of a blow received on the part; but, in general, it occurs without evident injury. The firm or sarcomatous part of an ovary affords a good specimen of the structure I am describing; the cells are here much larger, and are so vascular as to be made quite red by injection.

To shew that this structure is not peculiar to these parts, I may mention the following case: a tumour was taken from the face of a boy by Sir Charles Blicke, which, when divided, was found to consist entirely

<sup>\*</sup> Vide Fasc. 8. Plate 8. Fig. 2.

of an assemblage of cells filled with a watery, yet coagulable fluid.

In the testis, cysts are not unfrequently found containing a kind of caseous substance. In this case too, the sides of the cyst are vascular. The cysts are generally large, and sometimes there is but one. I have called the substance caseous, because it resembles cheese in consistence, and in colour; being of a yellowish cast, and of an unctuous appearance; but it is not at all unctuous to the touch. It may be proper to mention. that this caseous substance is sometimes irregularly distributed throughout the vascular substance of a diseased testis, without being confined in distinct cysts. I believe this kind of sarcocele is particularly unyielding to medical treatment.

## Mammary Sarcoma.

There is a species of sarcomatous tumour, which indeed I have not frequently met with, but which so strikingly resembles the mammary gland in colour and texture, that, wishing

wishing to distinguish it on account of the following case, I have named it Mammary Sarcoma.

I have seen this substance (which is white and firm, and has a similarity of appearance throughout) in the midst of adipose tumours; but my attention was not particularly excited to it till the following case occurred.

### CASE VI.

A moderately healthy middle-aged woman came from the country to St. Bartholomew's Hospital on account of a tumour of the size of a very large orange, which had grown gradually on the front of her thigh: it lay beneath the integuments and above the fascia. It was removed by an operation, and the integuments covering the tumour were also taken away, as in the removal of the cancerous breast. The sides of the wound were brought together by sticking plaster, and, at first, seemed disposed to heal; but afterwards a considerable induration of the surrounding parts took place, and the wound degenerated

into a malignant ulcer, which spread extensively, and was incorrigible by any medical means employed. As the ulcer spread, so, in the same proportion, did the hardness of the parts which surrounded it. The pain and fever so exhausted the patient, that in about two months she died.

This tumour, the appearance of which was exactly of the kind that has been described, seemed to have no distinct capsule, but to be gradually lost in the surrounding parts. The whole of the diseased part seemed to have been removed, yet it is probable that the contiguous parts had a disposition to disease, which was aggravated and rendered more malignant, by the injury of the operation. Could the circumstances have been foreseen, it might have been right to have removed the parts surrounding this tumour more extensively, as suggested in one of the preliminary observations.

There is a similar kind of diseased structure, but of a softer texture, which is frequently found as a distinct tumour, or in glandular

glandular parts perhaps; which might, with propriety, be considered as a variety of the same species of sarcoma. It has the same uniformity of surface, but it is not always of a white colour, being occasionally of a brownish or reddish tint. I have seen a substance of this kind forming a tumour surrounding and compressing the œsophagus, and causing a contraction of that tube. I have seen this kind of sarcoma in glandular parts, in which the progress and event of the case did not indicate the disease to be of a noxious nature. The general result of my observations, however, has induced me to believe, that this diseased structure is prone to degenerate into an intractable ulcer, which will communicate its disease to the surrounding parts, and I have therefore placed this species of sarcoma between those which seem to possess no malignity, and those which follow; and which are of a very destructive nature.

I add the relation of a Case which occurred at St. Bartholomew's Hospital, since the publication of the former edition of this paper.

VOL. IV.

### CASE VII.

A woman about fifty years of age, had a tumour growing beneath the skin of the perinæum, that by the side of the rectum, and that which is external to the labium. It was about seven inches in length, about two in breadth, and descended as low as the middle of the thigh. Sir Charles Blicke removed it, by dividing the skin on either side of the tumour length-wise, at the upper part of it. He then dissected out the upper part of the tumour, which was thin, from beneath the divided integuments, and brought the parallel edges of the skin together by two sutures. The tumours, when removed, being divided, appeared firm, white, and smooth, and strikingly resembling the mammary gland. It had no distinct capsule. The integuments adjoining to the tumour inflamed, and indurated, and ulcerated, and a very large and foul sore was formed. The patient's health became greatly deranged, so that little or no hopes were entertained of her recovery. However, after a time, the disease ceased to spread, and at the end of about three weeks began began to amend. The constitution became tranquil in proportion, and the sore slowly healed.

## Tuberculated Sarcoma.

The next species of sarcoma, which I have to describe, may be named Tuberculated Sarcoma. It consists of an aggregation of small, firm, roundish tumours, of different sizes and colours, connected together by a kind of cellular substance. The size of the tubercles is from that of a pea to that of a horse-bean, or sometimes larger; the colour of a brownish red, and some are of a yellowish tint. In Dr. Baillie's Plates there is one of the tuberculated liver\*, which expresses the appearance of this kind of sarcoma as well as can possibly be done by an engraving.

The instances which I have seen have been chiefly in the lymphatic glands of the neck. The tumours have ulcerated; have become painful and intractable sores; and

<sup>\*</sup> Vide Fasc. 5. Plate 2.

have destroyed the patient. The disease appears to possess a very malignant nature.

## CASE VIII.

A remarkable case of this kind occurred in St. Bartholomew's Hospital in 1797. A man between forty and fifty years of age had a large tumour at the side of his neck, beneath the platysma myoides. It measured about eight inches in length, and four in breadth. It was hard and irregular on the surface, seeming like a cluster of diseased lymphatic glands. It was extremely painful, and had greatly impaired his health. affirmed that it had not been more than six months since its first appearance, and in the course of this time, numerous small tumours of similar density and structure had grown beneath the skin all over the trunk of the body, but chiefly on the neck and abdomen. The skin and the front of the tumour in the neck had ulcerated, and become a painful phagedænic sore; and the patient died with hectic fever, in about six weeks after his admission into the hospital. The structure of all the tumours was alike, and such as has been

been described: the body was examined by the students of the hospital, who said that there were no tubercles on the viscera, as there commonly are in cases of this disease.— As this disease is uncommon, it may not be improper to relate another case on which I was consulted in the course of the last year.

### CASE IX.

A gentleman had a tumour in the lymphatic glands of the axilla, which he had taken notice of about a month, and which was supposed to be of a scrofulous nature. I was consulted as to the propriety of his going to the sea-side. The tumour was of the size of an egg, and its surface was irregular from the projection of numerous tubercles. This circumstance struck me, and led me to enquire if he had no other little tumours in the skin. He told me there was one in the groin, which appeared on examination to be a distinct tubercle; and on further enquiry, I found that the glands above the collar-bone, by the side of the neck,

were in some degree affected. I had no doubt of the nature of the disease, and told the physician, that, in my opinion, it would terminate fatally. After about a fortnight, when I saw the patient again, these tubercles had multiplied all over the skin, both in the front and back part of the body; they were hard and painful, and gave him the sensation as if he was lying on a number of hobnails. The disease in the glands, both below and above the collar-bone, had greatly increased, and the arm was very ædematous. The disease progressively increased; the skin seemed to peel off in thin sloughs from the surface of the enlarged glands in the axilla; but no sloughing or ulceration had taken place in the tumour when the patient died, which was about five weeks after I first saw him. On examining the body, the tubercles every where had the appearance which has been described; and many similar tubercles were found on the surface of the lungs, heart, liver, spleen, omentum, and mesentery. The absorbent glands of the mesentery, and the other inter-

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nal absorbent glands were, however, unaffected.

Since the above account was written, I examined a body in which such tubercles were found very generally scattered beneath the skin. The patient was said to have died, of a cancerous uterus, and the cervix was in a state of ulceration. The whole uterus was diseased, and the parietes were an inch in thickness. The disease, however, was not carcinomatous. From this case, as well as from others, which are related, it appears, that the same disorder of the general health may produce local diseases of a dissimilar appearance or nature.\*

Pulpy

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<sup>\*</sup> Since the publication of the former edition, I have seen a case, which is to me so singular, that I wish briefly to mention it. A gentleman had a spot in the skin, opposite to the inferior angle of the scapula. It had the appearance of one of those spots called petechiæ. It enlarged, thickened, and ulcerated. The ulcer became four and intractable, and the patient came to London with his health much disordered, apparently from local irritation. The axillary glands became affected, and enlarged to a considerable size, and suppurated. Smaller spots resembling petechiæ came out in various parts of his body.

## Pulpy or Medullary Sarcoma.

The sarcoma which is next to be described is generally found in the testis, and is distinguished by the name of the soft cancer of that part. The term cancer is objectionable, because it conveys an erroneous idea of its nature; for this disease, though perhaps equally destructive, will be shewn to be unlike cancer in its nature and progress.

The tumour, in those cases of the disease which I have most frequently met with, has been of a whitish colour, resembling, on a

He took medicines with a view to regulate and improve the functions of his digestive organs, which were much disordered. His general health improved, and under this change the original ulcer greatly amended in its appearance; the spots remained stationary; the parts in the axilla became so far sound, as to make it nearly certain that they had been affected only by common irritation, and not by a specific disease. This tranquil state lasted about six weeks, when the original ulcer became worse; and by the aggravation of that disease, without any increase of the others, his powers became exhausted, and he died.

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general and distant inspection, the appearance of the brain. The disease is usually of a pulpy consistence; and I have, therefore, been induced to distinguish it by the name of medullary sarcoma. Although I have more frequently met with this disease of a whitish colour; yet I have often seen it of a brownish red appearance. Which is most common I cannot decide: the structure and feel of both are the same, and their progress is also similar; they are therefore to be considered as varieties of one species. The shortest way in which I can communicate a knowledge of this disease, and render those remarks, which I have to make on it intelligible, will be, by relating a case in which it proceeded to a very considerable extent before it destroyed the patient.

### CASE X.

A tall thin healthy-looking man, of about forty years of age, had, about fifteen years before a swelled testicle from a gonorrhæa; the epididymis remained indurated. Six years afterwards it became enlarged, and a hydrocele at the same time formed. Half a pint

of water was discharged by a puncture, but inflammation succeeded the operation, and this testis became very large. An abscess formed, and burst in the front of the scrotum, and the testis subsided in some degree. Mercury was employed to reduce it, but without effect. The part, however, was indolent, and gave the patient no trouble but from its bulk.

About a year afterwards a gland enlarged in the left groin (the same side as the testis): another then became swoln in the right groin, and in the course of two years, several glands in each groin had obtained a very considerable magnitude. At this period he was admitted into St. Bartholomew's Hospital, under the care of Mr. Long. The testis was, at this time, between four or five inches in length, and about three in breadth: it resembled its natural form, and was indolent in its disposition. The spermatic chord was thickened, but not much indurated. Four or five glands were enlarged in the groin on both sides; each of which was of the size of a very large orange; and, when observed together, they formed

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formed a tumour of very uncommon shape and magnitude.

They gradually increased in size for several months, till at last the skin appeared as if unable to contain them any longer. It became thin, inflamed, and ulcerated; first in the left groin, and exposed one of the most prominent tumours. The exposed tumour inflamed and sloughed progressively, till it entirely came away. As the sloughing exposed its vessels, which were large, they bled profusely, insomuch that the students endeavoured, but in vain, to secure them by ligatures: for the substance of the tumour was cut through, and torn away in the attempt. Pressure by the finger, continued for some time, was the only effectual mode of restraining this hæmorrhage.

The loss of one gland relieved the distended skin, which had only ulcerated on the most prominent part of the tumour, and had not become diseased. It now lost its inflamed aspect; granulations formed, and a cicatrix took place. In the opposite groin a similar

occurrence happened. One gland, exposed by the ulceration of the skin, sloughed out, being attended by the circumstances just recited. However before the skin was cicatrized, ulceration had again taken place in the right groin, in consequence of the great distension of the skin from the growth of the tumour; and sloughing had begun in the tumour, when the patient, whose vital powers had long been greatly exhausted, died.

The testis was injected, and, when divided, was found to be of a whitish colour, and moderately firm consistence, and was made red by the injection in various parts. tumour formed by the inguinal glands on each side was as large as a man's head, and the structure was very similar to that of the testis, but more pulpy. On opening the body the pelvis was almost filled with similarly diseased glands, and the vertebræ were hidden by others as high up as the diaphragm. The disease in the upper ones was not, however, so far advanced as in the others: some of the former, which lay close to the diaphragm, and were not larger than a walnut, being

being cut into, a thick fluid, resembling cream in colour and consistence, escaped, and was expressed, and the gland was left a contexture of loose fibrous substance.

The state of the glands newly affected shews, that the actions of this disease cause a secretion of fluid like cream; that this fluid acquires consistence during its residence in the part; and that it is the cause of the increase of size in the gland. The profuse hæmorrhage, which took place during the sloughing, shews that there is an increase of vessels proportionate to the augmentation in bulk of the diseased part. The simple ulceration of the skin from distension, and the subsequent healing of the ulcer shew, that this morbid affection is unlike carcinoma, which communicates its disease to all contiguous parts; neither has it the hardness nor the disposition to ulcerate, which characterize cancer. The general disease of the absorbing glands shews, that the diseased action is readily propagated in the course of those susceptible vessels; and the glands of the pelvis being affected equally with those higher

higher up, renders it probable that it induces the disease, as well by imparting irritation to them, as by furnishing a matter capable of stimulating them when they have imbibed it; an opinion that will be more strikingly verified by the next case which I shall relate.\*

This species of sarcoma, though it usually affects the testis, occasionally occurs in other parts. I shall authenticate this fact by the brief relation of another case, which will serve also to throw additional light on the nature and progress of this disease.

#### CASE XI.

A boy, about twelve years of age, was brought to the Hospital for advice, on account of a tumour in the front of his thigh;

\* The progress of what is called the scirrhous testis, is similar to that of the disease which I am describing, and of course very different from that of genuine carcinoma. It is not improbable, that from the similarity of the progress of these two diseases, and the equal fatality having been remarked, they first acquired the contrasted names of soft and hard cancers of the testis.

it had been growing three or four months, and had then attained the size of a large orange. The base of it was situated close upon the bone. It increased, notwithstanding applications that were employed to disperse it, and the patient became confined to his bed. After some time the leg became ædematous to a very great degree; the inguinal glands were enlarged, but not in a degree proportionate to the ædema, none of them having attained to more than the size of a small walnut. The parts in the ham were also considerably swoln. In a short time the cause of the great degree of ædema was manifested; for the lower part of the abdomen became distended by a tumour, that seemed to rise out of the pelvis and compress the iliac vessels. The boy's health, as may be supposed, gradually declined, and, when the disease had attained to this state, he died.

On examining the parts it was found, that the tumour, though it lay close to the periosteum of the thigh bone, had no connection with it; that it was in structure like the dis-

ease last described; and that the disease had extended, through the medium, and in the course of the absorbing vessels, downwards to the ham, where the glands were enlarged and formed a considerable tumour; and upwards into the pelvis, where the internal iliac glands more than filled one side of that cavity, rising out of it, as has been said, so as to distend the lower part of the abdomen. The disease had also extended so as slightly to affect the lumber glands. The tumours in the ham and pelvis were of the same structure as the original tumour. The inguinal glands, though affected apparently by the same disease, were not considerably enlarged.

This case also shews the uncommon facility with which this disease is propagated along the absorbing vessels; and its having extended downwards to the ham, as well as upwards into the pelvis, confirms the opinion, that it extends itself by imparting irritation to the vessels, as well as, perhaps, by furnishing a matter, which, if imbibed, may communicate the same irritation.

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I have mentioned, as a variety of this disease, that in which the colour is different, it being between a brown and that of the blood; but in texture and organization it does not appear dissimilar. It seems therefore as if the diseased action caused the secretion of a fluid, sometimes of a milky, sometimes of a more dusky hue; which gradually acquires solidity, and augments the bulk of the part. The diseased part acquires in general a considerable solidity when it has continued for some time, so as scarcely to deserve the names of soft cancer, or medullary sarcoma. The hardness is also, in some instances, which I have seen, increased, apparently by a thickening of the cellular substance which pervades the gland.

It seems probable, however, that the same kind of diseased action may not be always followed by the like alteration of structure, in the part which it affects. Mr. Astley Cooper, in his Paper on Obstructions of the Thoracic Duct, mentions an instance in which matter imbibed from a testis affected with a disease like the pre-

VOL. IV.

sent, obstructed that vessel. His description of the testis is, that it was "a pulpy mass, composed of broken coagulable lymph, and blood-coloured serum". \*

I remember one instance of the inguinal and lumbar glands being affected with a disease similar to those just described, from a diseased testis of a different structure. The testis was removed in the Hospital, and was found much enlarged, and vascular throughout, except where some soft cheese-like matter was deposited. Some of the inguinal glands enlarged, ulcerated, and sloughed out, and the wound seemed disposed to heal. The lumbar glands were affected, became extremely painful, and the patient being previously much exhausted, sunk under this last complaint.

He had been removed to some distance from the Hospital, and I could not obtain permission to examine the body till four days after his decease. I took out the lumbar glands and put them in water; and,

<sup>\*</sup> Vide Medical Records and Researches, p. 96.

the weather being extremely hot, when I examined them the next day, I found that all the unorganized deposited matter which had enlarged them, had become putrid, and was washed away, leaving the capsule of the gland, and a congeries of flocculent fibres occupying the interior part of it; these were doubtless the vessels and connecting cellular substance of the glands, not indurated (as I have seen it in some other instances) by inflammation.

In the advanced stage of this disease, sometimes lymphatic glands out of the course of absorption, and of the participation of irritation, become affected with the same disease; and a secretion of this thick cream or bloody-coloured fluid takes place on the surface, or in portions, even in the liver or lungs, or other viscera. I have heard this circumstance accounted for, by supposing that the absorption of the matter deposited in the originally diseased parts was so abundant as to induce the necessity of depositing it in various places; but it seems to me more rational

to attribute it to the prevalence of the same diseased disposition throughout the body. For we frequently find, that solid tumours of similar structure exist in various parts of the same subject; and sometimes they rapidly multiply as the disease advances; as was mentioned in the case which is related of tuberculated sarcoma.

## Carcinomatous Sarcoma.

The last species of sarcomatous tumour which I have to describe, is the Carcinomatous. It is not here designed to give a full or distinct history of Carcinoma, but only a general and comparative account of those circumstances in which it resembles or differs from other tumours. This kind of tumour, on account of its peculiar hardness, is emphatically termed Scirrhus, while it remains entire and free from ulceration. But the word schirrus is frequently applied to other indurations, and it seems better, in order to avoid ambiguity, to use the same term to denote all the stages of this disease, naming it carcinoma, in the first place, and ulcerated carcinoma when that change has occurred

occurred. This disease is not, in every instance, so peculiarly hard as to entitle it to the name scirrhus; and however indurated it may be, it still must be accounted a kind of fleshy tumour; therefore I may be allowed to call it carcinomatous sarcoma.

I shall arrange the observations which I have offered under three heads; 1st, The history of carcinoma; 2dly, Its anatomical structure; and, 3dly, I shall compare this disease with others which resemble it. I shall suppose the carcinoma to arise in the female breast, as there it most frequently occurs, and can be best investigated.

It sometimes condenses the surrounding substance so as to acquire a capsule; and then it appears, like other sarcomatous tumours, to be a part of new formation: in other cases the mammary gland seems to be the nidus for this diseased action. The boundaries of the disease cannot be accurately ascertained in the latter case, as the carcinomatous structure, having no distinguishable investment, is confused with the rest of the gland. In either instance

instance carcinoma begins in a small spot, and extends its progress from thence in all directions, like rays from a centre. This observation will serve to distinguish it from many other diseases which, at their first attack, involve a considerable portion, if not the whole of the part where they occur. The progress of carcinoma is more or less quick in different instances. When, slow, it is in generalunremitting; at least I am inclined to think that the disease, though it may be checked, cannot be made to recede by that medical treatment which lessens the bulk of other sarcomatous tumours. This circumstance affords, in my opinion, another criterion, by which it may in general be distinguished. This obdurate and destructive disease excites the contiguous parts, whatever their nature may be to the same diseased action. skin, the cellular substance of muscles, and the periosteum of bones all become affected, if they are in the vicinity of cancer. very striking circumstance in the history of carcinoma distinguishes it from most of the diseases already described. In the pulpy sarcoma the disease is propagated along the absorbing

sorbing system, but the parts immediately in contact with the enlarged glands do not assume the same diseased actions. Neither in the tuberculated species does the ulceration spread along the skin, but destroys that part only where it covers the diseased glands.

It was observed by Mr. Hunter that a disposition to cancer exists in the surrounding parts, prior to the actual occurrence of the diseased action. This remark, which is verified by daily experience, led to the following rule in practice: "That a surgeon ought not to be contented with removing merely the indurated or actually diseased part, but that he should also take away some portion of the surrounding substance, in which a diseased disposition may probably have been excited." In consequence of this communication of disease to the contiguous parts, the skin soon becomes indurated, and attached to a carcinomatous tumour, which, in like manner, becomes fixed to the muscles, or other parts over which it was formed.

As a carcinomatous tumour increases, it generally, though not constantly, becomes unequal upon its surface, so that this inequality has been considered as characteristic of the disease; and it is a circumstance which deserves much attention. A lancinating pain in the part frequently accompanies its growth; but in some cases this pain is wanting. It attends also on other tumours, the structure of which is unlike carcinoma; of which I have given an instance in speaking of pancreatic sarcoma. This cannot therefore be considered as an infallible criterion of the nature of the disease.

In that kind of cancer, from which this description is taken, the diseased skin covering a carcinomatous tumour generally ulcerates, before the tumour has attained any great magnitude; a large chasm is then produced in its substance by a partly sloughing, and partly ulcerating process. Sometimes, when cells contained in the tumour are by this means laid open, their contents (which consist of a pulpy matter of different degrees

of consistence, and various colours) fall out, and an excoriating ichor distils from their sides. This discharge takes place with a celerity, which would almost induce a person ignorant of the facility with which secretion is performed, to believe that it cannot be produced by that process.

When the diseased actions have, as it were, exhausted themselves by their vehemence, an attempt at reparation appears to take place, similar to that which occurs in healthy parts. New flesh is formed, constituting a fungus of peculiar hardness, as it partakes of the diseased actions by which it was produced. This diseased fungus occasionally even cicatrizes. But though the actions of the disease are thus mitigated, though they may be for some time indolent and stationary, they never cease, nor does the part ever become healthy.

In the mean while, the disease extends through the medium of the absorbing vessels, and the glands in the axilla become affected. The progress of carcinoma in an absorbent gland is the same as that which has been already

ready described. The disease is communicated from one gland to another, so that after all the axillary glands are affected, those that lie under the collar-bone at the lower part of the neck, and upper part of the chest become disordered. Occasionally a gland or two become diseased higher up in the neck, and apparently out of the course which the absorbed fluids would take. The absorbent glands, in the course of the internal mammary vessels, become affected as the disease continues. In the advanced stage of carcinoma a number of small tumours, of similar structure to the original disease, form at some distance, so as to make a kind of irregular circle round it.

Here it is no wonder that I conclude the account of the dreadful effects of this pernicious disease. For when it has done so much mischief, the strongest constitutions sink under the pain and irritation which the disease creates, aggravated by the obstructions which it occasions to the functions of absorption in those parts, the vessels of which lead to the diseased glands. Towards the conclusion of the

the disease the patient is generally affected with difficulty of breathing and a cough. In cases where the external disease has been removed, the same symptoms of disordered respiration take place, and the patients die of internal diseases.

It has been a subject of debate and consideration, whether the disease of the absorbent glands, which takes place in carcinoma, be the effect of the stimulus of matter imbibed by those vessels from the original disease, or of irritation propagated along them. The reason for supposing that no poison is imbibed is, that if it were conveyed into the blood, it would produce general disease in the constitution; but no more fever or general disorder is found to exist in carcinoma than what would naturally be produced by the irritation which the affected parts occasion. It does not seem essential to my present design to discuss this subject at length: it is however right to observe, that we scarcely ever see glands diseased out of the course which the absorbed matter would naturally take, though they are affected in this manner in diseases which which can be propagated by irritation. When the glands of the axilla are obstructed by disease, the absorbed matter will pass by anastomosing channels, into the internal mammary absorbents, and if occasionally one or two glands in the neck are found diseased, they may become affected in the same manner, by the fluids being obliged to take a circuitous route.\*

There is another circumstance in the history of cancer, which deserves attention, and investigation; that is, Whether a disease not originally cancerous can become so in its progress? We can only form our opinions on this subject from analogy and observation. Analogy leads us to believe, that such an alteration in the diseased actions may readily take place. Venereal buboes often change their nature after the administration of mercury, and become troublesome sores to which

<sup>\*</sup> It may be proper to enquire, whether those tumours, which arise in the circumference of carcinoma, are not caused by the absorbed matter being made to stop for a time in the vessels, and thus to afford that irritation which induces disease in them and the contiguous parts?

that medicine is rather detrimental than beneficial. Injuries induce inflammation and enlargement of parts, which afterwards degenerate into scrofulous diseases. though analogy seems so strongly to favour the opinion, I cannot take upon myself to say, that my observations have confirmed it. When tumours have been removed, the history of which corresponded to that of cancer, a cancerous structure was observed in them; and on the contrary, in diseases of an apparently different nature, a different organization has been found. I once, indeed, assisted at an operation where the tumour was of that kind which I have denominated pancreatic; and I heard afterwards, that the patient died in the country of a disease which was reputed cancerous. Again, in investigating this subject, it deserves to be remarked, and every surgeon must, I believe, be familiarly acquainted with this fact, that many diseased tumours remain in the breast for a great length of time, perhaps during life, without undergoing any change in their nature; or, in other words, without becoming cancerous.

It is difficult to convey correct ideas of the structure of carcinoma by words, or even by drawings. In the generality of instances the diseased part is peculiarly hard, and there are intermixed with it firm whitish bands, such as Dr. Baillie has described and represented in his Book and Plates of Morbid Anatomy. There is indeed no other striking circumstance, which can be mentioned as constantly claiming attention in the structure of this disease. These firm whitish bands sometimes extend in all directions from the middle towards the circumference of a carcinomatous tumour, like rays from a centre, having little intervening matter. Sometimes they intersect it irregularly; having interposed between them a firm brownish substance, which may be scraped out with the finger. Sometimes they form cells containing a pulpy matter of various colours and consistence; and sometimes these bands assume an arborescent arrangement, ramifying through the diseased substance.

Firm white bands, like thickened and compact cellular substance, are seen as the disease ease advances, to extend themselves from the original tumour amidst the fat in which it is occasionally imbedded, intercepting portions of fat in the irregular areolæ which they form. This circumstance deserves consideration on account of its practical application; for if, after removing a carcinomatous tumour, the surgeon attends to the part which has been taken away, he will see if any of these bands have been cut through, and consequently, whether some of this diseased substance, which ought to be removed, has not been accidentally left. This circumstance cannot be observed by looking at the bleeding surface of the wound, but may be readily ascertained by examining the part which has been removed.

These are the chief circumstances, which I think sufficiently characterize carcinoma, and distinguish it from other sarcomatous tumours. The account of them is brief, and much has been omitted, because it was not designed particularly to discuss the subject of carcinoma, but merely to point out its distinguishing characters. I now proceed to speak

speak of diseases resembling cancer; though, in so doing, I shall digress a little from the principal subject of this paper, that is, to describe the distinguishable kinds of sarcomatous tumours, and give their history.

According to the preceding account, carcinoma, begins in a small scirrhus, which gradually enlarges and afterwards ulcerates. It does so in the breast, lip, tongue, and cervix uteri; yet it may be enquired if it does so in every instance. Parts sometimes superficially ulcerate at first, and afterwards acquire surrounding hardness, and strikingly resemble carcinoma, if they do not strictly deserve that name. This is the way in which some of those diseases proceed, which occur near the side of the nose or eye, and which gradually destroy the parts in which they are situated, and cannot be cured by any mode of local or general treatment. The intelligent reader will not suspect me of confounding these more malignant diseases with some herpetic ulcerations of the nose, in which the morbid actions gradually cease, and the first affected · parts

parts get well whilst the surrounding parts become diseased. I have known diseases beginning in ulceration, and followed by induration, and the growth of fungus extend themselves unremittingly, so as to destroy the patient. I have seen diseases of this description occur in the labia pudendi, some of which have terminated fatally, whilst others were removed even at an advanced period of the disease with success.

Here some additional discriminating circumstances seem to be wanted, by which we may distinguish between these ulcers and common carcinoma. I have never remarked, that such ulcers have affected the absorbent glands, though I do not feel assured that this occurrence never takes place. It therefore remains to be determined by future cases, how far this circumstance may enable us to decide on the nature of these diseases. I shall next relate the principal circumstances of a remarkable case of this kind of disease, which will serve to elucidate the subject, and also to exhibit a specimen of the diseases to which I allude.

VOL. IV. G CASE

## CASE XII.

A man was admitted into St. Bartholomew's Hospital with a tumour beneath the jaw, having a great degree of surrounding hardness, and containing three cells, like those of carcinomatous tumours. The history which he gave of the disease was very curious; he said that a redness took place superficially in the skin, which gathered and burst, and discharged good matter; that the opening enlarged, and the surrounding parts indurated, and thus produced an appearance like a cell in a carcinomatous tumour; then, another portion of skin became diseased in the same manner, and with the same consequences, till, by degrees, the general tumour had acquired its present magnitude. To the truth of this account we had an opportunity of bearing testimony; for this occurrence took place twice in succession during his residence in the Hospital; and thus two more cells were added to the general mass. The inflammation of the skin, and the suppuration, which was healthy in appearance, took place beneath the tumour, and made made it reach almost as low as the sternum. As the patient's health had considerably declined by the irritation of the constitution which this disease kept up, and as no amendment of the disease had taken place in consequence of the applications or medicines which were employed, he left the Hospital, and went into the country.

Diseases also, which strikingly resemble carcinoma in appearance, form in the following manner. An enlarged lymphatic gland shall gradually become soft, and contain a fluid. In this state it ulcerates or is opened; but instead of subsiding, it inflames; the surrounding parts become indurated; the integuments acquire a dusky hue; the opening and cavity enlarge, and assume the appearance of a cyst, from the sides of which fungus arises, and turns over the everted edges of the opening. have also seen, after the bursting of an encysted tumour the surrounding parts indurate; and throw out a fungus, forming a disease appearing like cancer, and which could not be cured.

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Are such diseases as I have here described to be accounted carcinomatous? if not, What are the characters which discriminate between them and carcinoma? As I have no precise or satisfactory information to communicate I forbear to say any thing on the subject.\*

Since the first edition of these observations, several publications have appeared on the subject of cancer, and as there are many circumstances relating to its History, upon the determination of which, by general observation and experience, our practical rules

\* A patient was admitted into St. Bartholomew's Hospital, with several indurated foul, but small sores, about the bend of the elbow, and some which intervened between it and the axilla. The axillary glands were much diseased, and the arm was swollen and hard. She said that the sores began like common gatherings, and that they hardened after the skin had given way. That the disease began in superficial sores, and that the axillary glands were next affected.

The patient died in the Hospital; and, on examining the limb, a great number of tubercles were found in its several of which were imbedded in the nerves of the arm. The lung also contained a great number of tubercles which appeared to be the effect of the same kind of disease affecting that part.

of

of conduct must be founded, I take this opportunity of presenting to the public some additional observations with respect to it, without presuming to comment on the opinion of others. I shall also in this account confine myself to the disease, as it appears in the female breast.

The account of carcinoma that I have already given, is taken from the most strongly characterized specimen of the disease occurring in that part, which is peculiarly hard, and rarely attains considerable magnitude. There are, however, varieties; and one of the most remarkable is, that of the disease attaining a very considerable size before it ulcerates. In this case sometimes the integuments remain pale and pliant, and a surgeon who first sees the breast in this state, may doubt whether the disease be actual cancer or common sarcoma. The substance of the tumour is also much less hard than in the specimen first described; yet it is more compact and weighty than most other diseases of the same bulk which are not carcinomatous. If at first a surgeon may hesitate to decide upon G 3

upon the nature of this disease, his opinion will in general be speedily determined by enquiry and examination. If the history of the disease accords with that of carcinoma, that is to say, if it began in a small district, and regularly and unabatingly attained its present magnitude; if the surface of the tumour be unequal, having in various parts produced roundish projecting nodules, the disease will almost invariably be found to be carcinoma. The skin will soon adhere to one or more of these prominences; it will ulcerate and expose the subjacent parts, and the future progress of the disease, will so exactly accord to that of the harder and smaller specimen which I have described, as not to require a separate description. In general, however, the absorbents are much less liable to become affected in the latter variety of this disease.

Having thus represented the extreme varieties of carcinomatous diseases, I need scarcely observe, that there will be intermediate degrees. In carcinoma, as in other diseases, it appears to me, that the history and progress

is more declarative of its nature than any circumstance which we may be able to discover by the sight or touch.

There is one circumstance in the history of carcinoma which may prove very perplexing to the observer, and tend to induce him to disbelieve that there is any regular progress belonging to this disease. I allude to the occurrence of cancer in parts previously diseased in another manner. Analogy, as I have said, would induce us to believe, that this might be a frequent occurrence; yet I cannot say that my observations have led me to think, that it very commonly takes place. Cases of tumours, which have remained indolent for twenty or more years, becoming cancerous at an advanced period of life are not unfrequently met with; and when tumours form in or about the breast at an advanced period of life, though the progress at the beginning may assure us that they are not carcinomatous, yet they may become so, after the lapse of but a few years, or even a shorter period of time. The impression which the considera-

tion of such circumstances has left on my mind (in conjunction with the information which I think I possess relative to the general health of a patient liable to cancer, and which I will presently communicate,) is, that the patients who are subject to such an occurrence might have been liable to the formation of a cancerous disease at the same period, even if no diseased structure had previously existed, and formed anidus for the cancerous actions. That they are more likely to begin in parts previously diseased, I readily admit; and that it may be prudent and proper to remove such diseases as I now allude to, under the circumstances which I have mentioned, and shall still further describe, is an opinion in which I readily concur; yet, if an idea, that most or many diseased structures might become cancerous was generally prevalent, it would doubtless lead to the performance of many unnecessary operations.

In the first volume of these Observations, I have given an opinion, which I am inclined even more fully and strongly to repeat, that a great number of tumours in and about the female

female mamma arise from a disordered state of the health in general, and consequently that the most judicious and effectual mode of dispersing them, is by correcting that general disorder. Such cases are very numerous, and very important, as the reader may see, by referring to the few that I have printed; yet all, or most of these, would be consigned to removal by the knife, were the idea which I have mentioned to become prevalent. When, however, a tumour that cannot be dispersed by the means to which I now refer exists in or about the breast, and which we feel assured is not of a carcinomatous nature, it may be well to remove it, because it is often a constant source of disturbance and alarm to the patient's mind; and, I am ready to admit, that it is likely to be a nidus in which cancerous actions may be engendered in a constitution predisposed to that disease. However I feel myself fully warranted in asserting, from my own experience, that many of them will remain in the same state for a great length of time, and even through life, without becoming cancerous.

That cancer, like most other local diseases, owes its origin to a disordered state of the health in general, is an opinion which I do not expect to be controverted. We express it even by saying, that there is a predisposition to cancer. Mr. Hunter was of opinion, that cancer was so far local, that if all the diseased part, or that which was so contiguous to it, as to have felt its influence, and to have acquired a predisposition to disease, were removed, the patient would be as exempt from cancer in that part as if it never had occurred. This opinion, deduced from his own experience, is very important; it shews us how we ought to operate when an operation is to be undertaken. I am ready to admit the truth of this opinion to the extent affirmed by Mr. Hunter; but though the patient may be as exempt from the disease as if it never had occurred, that state of constitution which induced it originally, may, after a certain lapse of time, cause it to form again\*, or may produce the same dis-

ease

<sup>\*</sup> If after the removal of cancer, when the operation has been properly performed, the cicatrix remains healthy for

ease in other parts of the body, or a patient may die of other ills or diseases attendant on a cancerous constitution.

In our present state of knowledge, we are not, I believe, able to distinguish any peculiar circumstance as characteristic of a cancerous constitution. We observe in it those circumstances which indicate a disordered constitution, and augment the disorder by each reciprocally aggravating the other; I mean irritation, weakness, or some undefinable disorder of the nervous functions; and such disorder in the functions of the digestive organs, as I have described in the first volume of these Observations. I see persons having the same evident affection of the health in general, subject to tumours in and about the

for five or six years, or even for a shorter period, and then becomes indurated and carcinomatous; it appears to me more consistent with what we know of the action of this disease, to suppose, that it has originated again in consequence of the diseased propensities of the constitution, rather than that it has lain dormant so long, and is but now awakened.

breast,

breast, which are not cancerous, and to those which are cancerous. What additional circumstances lead to the establishment of cancerous actions in the local disease thus induced, we have yet to learn.

Previously to the occurrence of cancer the nervous disorder, and that of the digestive organs, have, in general, been greater in degree, and longer in duration, than they are found to be antecedently to other disorders. Some patients having cancer die of organic diseases in the head or abdomen. If the nervous and visceral disorders are active and considerable, the progress of the local disease will be, in general, proportionately rapid and destructive; and if, on the contrary, these disorders are mild, and less in degree, the progress of the local disease will be proportionally slow and gentle. In confirmation of these observations, I may mention, that I have seen several instances of cancer proceeding so mildly, that the patients have lived many years with little suffering or inconvenience from the local dis-

ease,

ease, and particularly where attention has been paid to regulate the functions of the digestive organs.\*\*

With a view to impress the contrary fact on the mind of the reader, I will briefly relate two cases in proof of it.

## CASE XIII.

A lady came from the country with a cancerous tumour in the breast, and took

\* There can be no subject which I think more likely to interest the mind of a surgeon, than that of an endeavour to amend and alter the state of a cancerous constitution. The best timed and best conducted operation brings with it nothing but disgrace, if the diseased propensities of the constitution are active and powerful. It is after an operation that, in my opinion, we are most particularly incited to regulate the constitution, lest the disease should be revived or renewed by its disturbance. In addition to that attention to tranquillize and invigorate the nervous system, and keep the digestive organs in as healthy a state as possible, which I have recommended in the first volume, I believe general experience sanctions the recommendation of a mere vegetable, because less stimulating diet, with the addition of so much milk, broth, and eggs, as seem necessary to prevent any declension of the patient's strength.

some medicine, probably arsenic, by the desire of a female quack, which brought on the most violent sickness and purging, with death-like faintings. It was uncertain for several days whether she would survive its effects. Inflammation was induced in the local disease to such a degree, that the cancer sloughed, and came out, and violent erysipelatous inflammation extended itself from the skin of the breast to a great extent. The sides of the cavity, however, threw forth a cancerous fungus, and in this state she returned into the country.

## CASE XIV.

A lady about forty-six years of age, asked my opinion respecting a small lump in her breast. She was very nervous and agitated, and her bowels extremely disordered. She said she had sometimes twenty discharges from her bowels in twenty-four hours, and that the secretion of bile was as faulty as possible. After about six weeks she called upon me again, having been in the country: the medicines which she had tried had been productive

ductive of little or no good. Her conversation was equally desultory and agitated. Her pulse very frequent. The lump was enlarged to about the size of a walnut, but had no signs by which I should have known it to be cancer. Hearing that her surgeon in the country thought it cancerous, and believing that an operation in her present state was inadmissible, I recommended her to take the opinion of another surgeon. I did not now see her for some time, I believe about two months, when the tumour had become as large as an orange, and had thrown out a fungus, which protruded in nodules. The tumour had, she told me, become soft, and seemed as if it were gathering, and these protrusions took place afterwards. Her general health was still equally disordered, and the surgeon, who had seen her, concurred with me in opinion, that an operation under her present circumstances was inadmissible. The lump rapidly increased; and, in the course of a few months, became as large as a child's head, having all the characters of carcinoma. It then ulcerated, and did not afterwards materially enlarge. I need not describe

describe how it ulcerated, and how it, occasionally, bled profusely, She gradually became emaciated and feeble, and died exhausted, without the glands in the axilla becoming diseased, or any peculiar symptoms occurring.

In order further to elucidate the opinions which I entertain respecting the constitutional nature of cancerous disease, I select the following case.

## CASE XV.

A lady had had a tumour in, or near the right breast, for more than twenty years, which, when she was between fifty and sixty years, may be said to have become cancerous. The patient indeed insisted, that the cancer did not begin in the original lump, but by the side of it. No local treatment arrested its progress; and, in a short time, it became cognizable from its induration and irregularity of surface, as a decided case of cancer. The tumour, and a considerable portion of the surrounding parts,

were

were therefore removed. The wound healed healthily in a short space of time, and the patient left London. She had always been, to use her own expression, extremely bilious, yet the discharges from the bowels were but rarely tinctured with good bile. She had passed gall stones. Her bowels were very irregular in their functions, being frequently very costive, or the reverse. Whilst I had attended her, she had taken five grains of the compound calomel pill every second or third night, and kept the bowels as regular as possible. She said, that her health had been greatly benefited by these attentions, and I urged her still to continue them. For a year or more, after she left London, she was well, the cicatrix remaining perfectly soft and smooth. Having occasion to travel after that period during the winter, and being badly accommodated at the inns she met with on the road, she caught cold, and became very feverish and unwell. The cold, she said, had fixed itself on the lungs, for a cough, and a difficulty of breathing continued, and increased, so that in a little more than a year from its commencement it destroyed her.

vol. iv. H About

About six weeks before her death, she came to London, when she told me, that since the time of her catching her dreadful cold she had found a lump begin to form in her other breast, and that the cicatrix had afterwards become diseased. The tumour in the left breast was of a globular form, of about an inch and a half in diameter, it was hard, weighty, and nodulated upon its surface. It was most characteristically cancerous, but what I should term a dwarf or stunted specimen of that disease, such as we see produced when the powers of the constitution are much lessened. This, and the corresponding fact of cancer diminishing when the powers of constitution decline, should be noted, or else a surgeon might attribute such effects, the consequences of natural causes, to the medicine which he employs. The upper part of the cicatrix, on the opposite side, had indurated and ulcerated, but not to a considerable degree. I was not permitted to examine the body, which I much wished to have done, because, I believe, the extreme difficulty of breathing could not have been occasioned by any thing less than organic 5+ disease

disease of the lungs. I have, however, examined the bodies of cancerous patients who died with difficulty of breathing, without discovering disease in those organs.

The symptoms subsequent to operations, being the result of that excitement of constitution which the thoughts and injury of the operation occasion, often exhibit, in a very striking manner, the diseased propensities of the constitution. I think it may be useful briefly to relate those which occurred after the removal of a cancerous tumour in a case which I lately attended. The patient possessed what might, in general, be called a good constitution, and great fortitude, so that she bore the operation without the least complaint. Yet during the day preceding the operation, she had a slight lumbago, as she called it, which I believed to be the effect of that anxiety of mind which the thoughts of undergoing the operation must occasion. In the evening after the tumour had been removed, she complained of a desire, and of an inability to void urine; she had also sensations in the throat like hysteн 2

hysterics. Her pulse was 80. She had no sleep during the night, but had voided half a pint of urine, which had no striking peculiarity of appearance. Saline draughts had hitherto been given, and she was now desired to take zj of ol. ricini, mixed with mucilage and cinnamon water, every fourth hour till a stool was procured. She took seven draughts without any effect. The pain in the back increased, and during the second night was so severe, that she groaned very constantly from the pain. On the third morning, I found her very ill, yet her pulse was not more than 90, neither was her skin hot. She had voided no urine for the last 30 hours: pain continued from the back down the thighs, but the absence of fever convinced me, that the pain in the back and suppression of urine could not be the effect of nephritis. Thinking, as I had done from the beginning, that the kidneys were sympathetically affected by the state of the bowels, and that the pain of the back depended on the state of those organs, I now ordered her a pill of extract of colocynth, and a draught of Epsom salts, every fourth hour, instead

of the castor oil. In the evening, discharges from the bowels took place; she had five stools, and the pain in the back had nearly ceased. Feeling very languid, and having had no sleep during the two preceding nights, she took 20 drops of laudanum, and a little nitrous æther, in water. This medicine produced great heat and uneasiness in the stomach; and though she slept a little from the opium, her sleep seemed to be attended with more disturbance than benefit. voided some urine during the night, which was like extremely muddy water. 'As the discharges from the bowels had ceased, and did not seem likely to be renewed, she began again with the castor oil draughts, by which an evacuation of the bowels was procured in the course of the day. The urinary secretion continued, and was augmented in quantity. As the stools were not properly tinctured with bile, three grains of the pilul. hydrarg. were ordered to be given every second night for the future. Dyspeptic symptoms and flatulence now claimed our chief attention. She complained of great acidity, of distention, and tenderness at the lower part of the н 3 epigasepigastric region. For this she took chalk mixture, with aromatic confection, and afterwards magnesia; which latter medicine seemed afterwards sufficient to keep the bowels in a gently lax state. In about a fortnight her bowels were in a comfortable state, and in about three weeks the urine was clear, and secreted in the usual quantity. On the eighth day, when the dyspeptic symptoms were severe, the patient had gout in her finger and toe, to which she had been previously subject. It is right to mention, that prior to the operation, the urinary secretion had never appeared to her to be irregular either in quantity or quality, and that her bowels had been readily affected by rather slight doses of medicine. The same circumstances were observed after the subsidence of the disorder occasioned by the operation. I have satisfaction in adding, that though the wound suffered during the continuance of the constitutional disturbance, it afterwards healed rapidly and smoothly, so that at the end of six weeks, it had the appearance of a scar in perfectly healthy parts.

If a cancer be a constitutional disease; if patients affected with it have occasionally other diseases of a fatal nature; if in some instances, when there is no organic disease, the nervous system is so irritable, and the digestive organs so disordered, as to render any operation perilous; these circumstances must render every surgeon who perceives them reluctant to operate, and uncertain as to the event of the case. They shew the necessity of solicitously attending to the constitution of the patient after an operation, with a view to prevent the recurrence of the disease, or its formation in other parts. They explain how it happens, that the operation frequently accelerates the death of the patient. I have known a patient die soon after an operation for the removal of a cancerous tumour of no great magnitude, merely in consequence of the shock imparted to the constitution by the operation. I have known other cases, in which the diseased state of the wounded parts seemed to have been the chief cause of the speedy death of the patient. I therefore concur in opinion with those sur-

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geons,

geons, who think, that in many instances an operation for the removal of cancer would be rash and unjustifiable. Yet, however numerous and momentous the deterring reasons may be, I think they should not prevent our operating in many cases. If the whole of these diseased parts, and those which, from contiguity with them, may have been so far influenced as to acquire a disposition to disease can be removed, it surely ought to be attempted, provided the constitution is not so disordered, or diseased, as to prohibit the operation. We ought to bend our minds attentively to make out the characteristic signs of cancer, that we may know it at an early period, and when the disease is in a small compass, and the operation on that account less formidable. To forbear to operate is to consign the patient to hopeless misery.

Fumigations with carbonic acid gas, weak acids, and fresh vegetable juices, correct the fœtor, infusions of opium lessen the pain, and oxyds and saline preparations of iron

seem

seem to expedite the destruction of the diseased parts, and cleanse the sore; yet I have not seen any such effects from local applications as lead me even to hope that any may be discovered that will cure the local disease.

The ulceration and self-destroying process of cancer is so horrible a process, that it may be stated as an argument for the operation, that a patient gets rid of a quantity of disease upon easier terms by having it removed by the knife, than by suffering it to proceed in its natural course. When the scar or surface of a wound after an operation, becomes indurated and cancerous, the patient suffers much less pains and there is much less fætor in the disease thus formed, so that the patient's sufferings are, on the whole, much diminished. But if the patient's constitution be moderately good, and if the operation be performed at a sufficiently early period, I have known life prolonged for five, six, or more years; and when, after that lapse of time, the cicatrix has become diseased, the actions which ensued have been indolent, and

the patients have gradually sunk, and died, rather from some circumstances connected with the state of the general health, than from the degree of the local disease.

There are tumours, the structure of which may not correspond with any of the descriptions that I have given. I feel, however, unable, from my own observations, to depict any other species. It seems to me, that these diseases resemble colours in this respect, that a few of the primary ones only can be discriminated and expressed, whilst the intermediate shades, though distinguishable, by close attention and comparative observation, do not admit of description or denomination. There are single tumours, in the composition of which several of the above-described structures may be found, and, perhaps, some part of which may not correspond to any description that has been given. If, however, the history of these dissimilar diseases, which appear in the form of tumours, were accu-. rately recorded, and their structure noted, we might perhaps from the former be led to judge of the latter; and thus attain a knowledge

ledge of the intrinsic nature of the disease which would enable us to act rightly in practice.

## Encysted Tumours.

In the class of local diseases, and in the order of tumours, custom seems to have placed the genus of Encysted Tumours, next to those of the sarcomatous kind. The arrangement indeed appears proper; for they are so allied in appearance, and in the sensation which they impart on examination, that they are not unfrequently mistaken for each other; and yet, in general, the encysted tumours have sufficiently distinguishing characters to enable a surgeon to determine their nature prior to the performance of an operation. The discriminating characters are, -a regularity of surface and shape, and a pulpy feel. Yet most surgeons will, I believe, acknowledge that they have seen tumours dispersed, which they have taken for wens; and have even, when they have removed them under that belief, discovered the disease to have been a soft regularly shaped sarcoma, sarcoma, and not a cyst containing a pulpy substance.

Respecting the structure of encysted tumours I have nothing to remark, but what is, I believe, generally known. The cysts most frequently are composed of many lamellæ, which are sometimes so compacted, as to be scarcely distinguishable. These cysts vary considerably in thickness; being sometimes very thick and tough, and at others extremely thin and tender. They sometimes most tenaciously adhere to the contiguous parts, so as to make it difficult to separate them; and, at others, they are so loosely connected, that, when an incision is made which lays bare the cyst, the whole tumour starts out without any dissection.

That the interior surface secretes the contents formed in the cyst, is in my opinion indisputable. That it is a secreting surface I believe; because, when a wen has spontaneously opened by ulceration, I have seen the cyst produce granulations from its surface. When also, the front of the bag has alone been

been taken away, and the skin closed over the back of it, an union takes place between the skin and cyst. When also a wen has burst, or has been punctured, so that a small aperture has been left in it, which has occasionally given discharge to its contents; I have seen the cyst fill repeatedly by a secretion of the same nature, but more fluid than the contents which were at first found in it.

Some notions have of late been entertained, that these cysts may be of the nature of hydatids; it may not, therefore, be improper, in order to enable the reader to form his own judgment on this subject, to mention the following case.

A gentleman had a wen in his cheek, which spontaneously burst, and on which Mr. Hunter tried various stimulating means to induce the cyst to granulate or adhere, so that no further collection might ensue. His endeavours, however, were unavailing; for, after the opening closed, the cavity of the cyst filled again, and the wen was as complete as before,

before, and had increased in magnitude. It was situated unfavourably for removal, and the patient was adverse to an operation. It lay so deeply on the buccinator muscle, as to be as perceptible from the mouth as on the cheek; and there was a great risk of dividing the parotid duct, in an operation undertaken for the removal of the tumour. formity which the wen occasioned, was, however, considerable, it being as big as the largest kind of walnut; and the patient was very desirous of having the tumour lessened, though very averse to having it extirpated. He had for this purpose used salt and water, which made the skin inflame. Having consulted me, I told him that if stimulating applications were to do good, they could only effect it by causing the skin to ulcerate, and the contents of the wen to be discharged, as had formerly happened; all which might be accomplished in a more direct, and less teazing manner, by just pricking the bag with a lancet, and squeezing out its contents. I thought it also probable, that the small wound would heal, and that the operation might be occasionally repeated. The patient

was pleased with the proposal, and it was put in execution. The contents were of the consistence which is termed meliceritous, and had a peculiar odour. No inflammation ensued, and the wound healed; but, after a little time, it opened again, and gave discharge to a small quantity of watery liquor, of precisely the same odour as the original contents, and the little puncture again closed up. From that time to the present, which is now some years, the wound has occasionally opened, discharging a small quantity of sometimes a more fluid, sometimes a more meliceritous substance; and, after this discharge, the aperture closes up. This circumstance occurs but seldoin; perhaps every second or third month. The aperture is so small as not to be discernible; no plaister is worn upon it, and the patient has got rid of a considerable deformity, upon what he thinks very easy and satisfactory terms.

I have mentioned these circumstances to illustrate the functions of the cysts of these tumours; and to shew what may be done in some

It is not, however, meant to recommend such practice; for, on the contrary, it will be shewn hereafter, that it is dangerous to tamper with encysted tumours; and, indeed, I should not have ventured on this palliative mode of treatment, in the case related, had I not known from the effects of the former conduct, which had been pursued, that the cyst and contiguous parts were of an indolent nature, and not disposed to re-act in consequence of violence done to them.

The contents of encysted tumours have been denominated from their consistence, steatomatous, atheromatous, and meliceritous. To this ancient distinction must be added another; the cyst sometimes secretes a substance like nail or horn; which is protruded when the skin ulcerates, hardens, and is pushed forwards in proportion as the cyst secretes more of this substance, so as to appear like horns; as has been shewn by Mr. Home in the Philosophical Transactions.

There

There is yet another curious circumstance to be noticed with relation to cysts; which is, that they have sometimes hairs growing from their interior surface. This happens in those cysts which are not unfrequently met with in the ovary.\*

But though the cysts of encysted tumours must be considered as possessing the organization of other parts, and as secreting and absorbing surfaces; yet their vessels are probably very minute, and not endued with a degree of strength adequate to the ordinary reparation of injury. If they produce granulations they are flabby, and the sores are not disposed to heal.

It is no uncommon circumstance to meet with wens, that have burst spontaneously, and have thrown out a fungus, which, like a

vol. iv. i foreign

<sup>\*</sup> Some of the tubercles which occur in the viscera seem to be formed by the deposition of various kinds of substances from the surface of a cyst, which appears to be the first formed and most essential part of the disease.

foreign body, prevents the surrounding integuments from healing.

Most parts that are weak, are irritable when excited, and apt to assume diseased actions. This frequently happens in a striking manner in the cysts of these tumours; and as, perhaps, surgeons are not sufficiently apprized of the bad consequences sometimes occurring from the inflammation of wens, and as it is proper to shew the danger of irritating these diseases, I shall relate a few cases to illustrate this fact.

A woman about forty years of age, was admitted into St. Bartholomew's Hospital, with a frightful fungus growing on the front of the belly, below, and to the right of the navel. She had been a healthy lusty woman, but was greatly deranged in health by the pain and irritation which this had occasioned. She described it as being a wen which had burst, and her account was afterwards verified by dissection. The fungus bled, and she could scarcely bear the softest

softest dressings to be applied to the part. Nothing mitigated her sufferings so much as lint dipt in a solution of opium, and kept moist by very frequently squeezing on it, from a sponge, a sufficient quantity of the solution. Nothing allayed the constitutional irritation but large doses of opium. She died exhausted in the course of a fortnight.

I removed the cyst from off the aponeurosis of the external oblique muscle, where it covers the rectus, leaving the tendinous expansion quite clean and unaffected. The cyst had ulcerated in two small places, so that the fungus which it contained was visible from behind.

A man between forty and fifty years of age, who was in St. Bartholomew's Hospital, had a wen on his back, which ulcerated, discharged an atheromatous substance, and afterwards inflamed, and threw out a fungus. Extensive erysipelatous inflammation took place in the surrounding integuments, and his constitution was greatly deranged by irritation and fever. When he was almost ex-

hausted by these circumstances, and before any local amendment had taken place, another wen of the same nature, which he had on his right thigh, ulcerated, and was followed by the same consequences, and, conjointly, they soon destroyed him.

A gentleman, of a stout make, and about forty years of age, had a tumour, supposed to be sarcomatous, which had formed beneath the integuments on the lower edge of the pectoral muscle. It was attended with severe pain occasionally, at which time it rapidly increased in size, and produced a great deal of fever and irritation\*, which made him look very sickly, and grow very thin, and caused some persons to deem the disease cancerous.

When

<sup>\*</sup> Circumstances like these should, I think, be particularly attended to in the history of tumours; for they may serve, perhaps, to characterize the disease in which they occur. Tumours of an innocent nature commonly increase in an equal ratio, and do not excite irritation in the contiguous parts, or in the constitution. Yet this, as a general rule, has exceptions. Some of these have been stated under the head of pancreatic sarcoma, occurring in or about the mammary gland.

When the tumour had acquired a magnitude of about four inches in length, and three in breadth and depth, he submitted to its removal; the integuments were divided and turned back, and the tumour dissected off the surface, and, in some degree, from under the edge of the pectoral muscle.

When the tumour was examined, it was found to be composed of a steatomatous substance, contained in a thin capsule. This substance resembled that which I have described as being sometimes found in cells in the testis, or intermixed with the diseased organization of that part. It was firm, and resembled cheese in its yellow colour and unctuous appearance; but it was not unctuous to the touch.

The wound made in the operation soon healed, and the patient's health was restored to as good, or seemingly a better state than before the formation of this disease. He also regained his usual athletic form. But in less than three months after his recovery, two new tumours formed, one above, and the

other below the cicatrix of the wound. The patient did not particularly attend to them till they had attained a size equal to that of a large walnut. To dissect out both these tumours, and make so free a removal of parts as to render it probable that no new growth would ensue, seemed to be a very formidable operation; and, as the nature of the former tumour was known, and it was supposed that these were of the same kind, it was agreed to puncture the upper one, to express the contents, and await the event. This was done by a puncture of half an inch in length, made by an abscess lancet. The contents were exactly like those of the original tumour. Vehement erysipelatous or irritative inflammation took place, and sloughing about the diseased part; the inflammation rapidly extended to the opposite side of the thorax, and then down the integuments of the abdomen to the groin. The derangement of the constitution was as violent as the local disease, and in about a week the patient died.

These cases are related to shew the danger of irritating wens, either of an irritable nature, nature, or occurring in irritable habits; and because I have not met with such cases described in books in a manner adequate to the importance of the subject.

It deserves to be noticed in this brief account of encysted tumours, that the disposition to form wens prevails frequently in many parts of the body at the same time. It is not very uncommon to see many, even twenty or thirty wens alike in their structure and contents in various parts of the same subject. Nay, the disposition seems sometimes to be hereditary, and transmitted from parents to their children.

The subject would appear to me to be incomplete were I not to notice the formation of cavities, containing different substances, and which can neither be accounted encysted tumours, nor abscesses. The cysts are like the cysts of abscesses; they are secreting surfaces, not regular in shape, but varying according to the form of the parts, amongst which they are produced. They adhere also, like the sides of abscesses, to the circumjacent parts,

and

and are not easily separable from them like the cyst of wens. These cysts sometimes contain a kind of serum and hydatids like the cysts formed in the liver, and other viscera. Sometimes they contain a number of granular substances of a white colour, having a polished surface, and generally an oval figure, which resemble pearl barley, but the granules are generally smaller. I have seen the cysts containing hydatids, in the back and about the hip, on the shoulder and in front of the elbow joint\*. I never met with any contain-

<sup>\*</sup> The cysts from which such substances are discharged, are, in general, very irritable. If they are kept open for some time, an alteration seems to take place in the actions of the part, and they no longer continue to secrete that matter which forms the granules I have described, nor the fluid in which hydatids are found. As these diseases are not so frequent as to be familiarly known to surgeons, whose practice is not extensive, I will relate two cases to shew the nature and treatment of such discases. - Case. A young lady had a considerable collection of fluid beneath the biceps muscle of the arm. It protruded on either side of the muscle, and reached to about three inches above the elbow joint. I punctured it with an abscess lancet, and discharged about six ounces of serous fluid, containing a few hydatids. The wound, which was an inch in length, was dressed with

containing these granular bodies but about the hip, and, in the thecæ of tendons; I have

with spermaceti salve, a bread and water poultice applied, and the arm was supported by a sling. For a few days serous fluid oozed from the aperture, when the external wound had closed so much as to prevent its escape. I introduced a probe into the cavity, and afterwards a small tent, to prevent the aperture in the cyst from closing. This trivial irritation caused great disturbance in the parts, to a considerable distance, which became heated and swollen, and so painful, that I dared not to persevere. The wound was suffered to heal, which it soon did; but the fluid collected again. Instructed by this experience, I now opened the cyst with a lancet, introduced a probe-pointed bistoury, and enlarged the aperture to the extent of an inch and a half. This wound was dressed superficially; it was three weeks before it closed, and afterwards no collection of fluid took place in the cyst, and the patient remained perfectly well. --CASE. A gentleman had for many years suffered great inconvenience from a collection of fluid beneath the fascia of the ring finger, the palma fascia, and that of the forearm. The collection seemed to have begun in the palm of the hand, but had extended itself half way up the theca of the ring finger, and passing under the carpal ligament, had made its way by the ulnar side of the flexor muscles, and protruded the fascia of the fore-arm in that part which intervenes between the flexors of the fingers and the flexor carpi ulnaris. At this part the fluid was nearest to the surface, and it was agreed, in consultation, that it should here be opened. I accordingly made have therefore conjectured that these cysts are enlargements of the bursæ mucosæ.

made a division of the skin about two inches in length, to expose the fascia of the fore-arm, which I divided to the extent of an inch and a half. I then distracted the muscles a little, when there gushed out a large quantity of fluid, containing a number of the largest granules that ever I had seen formed in the sheaths of tendons. veral of them were as big as small grapes. By pressing the palm of the hand more were forced out, yet I remained uncertain whether the whole were discharged. The wound was dressed superficially with spermaceti salve, a bread and water poultice applied, and the arm kept supported in a sling. Three days after the operation, fearing lest some of the granules might remain, I introduced the point of a varnished catheter, and impelled some warm water beneath the fascia of the hand. No granules returned with it: but this experiment caused great nervous irritation in the part, and in the constitution in general. Nothing therefore was farther done that could irritate the parts, and the wound healed in about six weeks, in the following manner: The skin on either side of the wound became tumid, and threw forth exuberant granulations to such a height, that a swelling as big as half an egg cut lengthwise, projected above the level of the skin; as the granulations from either side touched, they coalesced, and thus the divided fascia was covered. The granulations being afterwards absorbed, the cicatrix appeared like one from a common cut, and the integuments were flat, and in a natural state. I saw the patient two years after this operation, and there had been no new collection of fluid.

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The greater number of these cases, which I have seen, have ultimately, but very slowly, done well. However some cysts, upon becoming open, produce great and even fatal irritation in the contiguous parts. Sometimes cysts, as Mr. Hey has lately remarked, produce that appearance which he has called fungus hæmatodes. Of this circumstance, as it appertains to the present subject, I shall relate an instance; but to speak more largely of that disease, would be deviating from the plan of this paper, and would be unnecessary, as the numerous and accurate cases, which Mr. Hey has related, shew that this disease may exist without being connected with cysts.

A girl about sixteen years of age, who was in St. Bartholomew's Hospital, had a collection of fluid under the triceps extensor cubiti, near to the olecranon. When I first saw it, it was not larger than a pullet's egg, but it increased, notwithstanding the means which were employed to discuss it; and in about twelve months, it presented itself beneath the integuments on the outside of the

arm, in the space between the extensor and flexor muscles, a little above the elbow. Upon compressing the projecting integuments, a fluctuation of fluid was felt beneath the triceps muscle in the inside of the arm, and the collection seemed to extend high up on the back part of the os brachii, As the parts containing the fluids seemed\_ more disposed to increase in dimensions, than to give way and discharge their contents, the collection was opened where it pointed, and a quantity of serum was discharged. On introducing the finger, some strata of coagulated blood came away, and this was succeeded by so great an hæmorrhage, that it became necessary to enlarge the wound, in order to search for the bleeding vessels. In proportion as this was done, and more coagulated blood was detached from the sides of the cyst, which had contained both it and the serum, the hæmorrhage increasd and the blood flowed so profusely from so many and such large arteries, that it was impossible to controul its effusion. Amputation seemed unavoidable, and was performed as high up as possible, but not clearly above the cyst,

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some part of which remained amongst the muscles of the stump.

On examining the amputated limb, a thick and firm stratum of coagulated blood was found adhering to the sides of a cyst, which extended from a little above the olecranon, where it was large, to nearly the upper part of the os brachii, where it gradually tapered to a small size. The upper part of the cyst was cut off from the rest by the amputating knife, and of course remained upon the stump. At first the stump appeared to do well, but shortly after the sides of the wound separated, considerable inflammation came on, and a fungus was thrust forth. Great fever and irritation accompanied this local disorder, and the girl died.\*

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<sup>\*</sup> An unrestrainable hæmorrhagic tendency seems to be the essential character of that disease, which Mr. Hey has denominated Hæmatodes. That it takes place from diseased structures is manifest; yet I have known it happen without any morbid growth having preceded it. I shall briefly relate a case of this description, because the term fungus hæmatodes seems to be a name commonly now applied to every bleeding fungus, whilst that hæmatodal disposition, which Mr. Hey has described, is a very

The treatment of encysted tumours resembles that of the sarcomatous kind. By abstracting blood and heat from the part it is probable the growth of them will be stopped, and the disease made for a time stationary. They are not likely to be dispersed; and, as the magnitude is increased by delay, and the spontaneous opening of the cyst generally leaves a vexatious and intractible sore, and sometimes is attended with more dangerous consequences, the early removal of the disease is the best practical conduct that can be pursued.

rare occurrence. — Case. A young man, who was out of health, complained of stiffness and pain in the bottom of his belly, and took to his bed, declaring his inability to move about. Suddenly a swelling formed above the Poupart's ligament, which rapidly increased, and the skin ulcerated. A frightful fungus seemed to present itself, and an uncontroulable hæmorrhage ensued. When the case was examined after death, all that bulged out could be removed by the finger or sponge, and appeared to be coagulated blood, rather than fungus, and at the bottom nothing was seen but the abdominal muscles, which had that bruised and brownish appearance which Mr. Hey has described.

Another genus of tumours is the osseous. Those which hang pendulous into joints are sometimes bony. Osseous tumours also form, though not frequently, in other parts: of this circumstance I shall relate the following instance. A woman was admitted into St. Bartholomew's Hospital, with a hard tumour in the ham. It was about four inches in length and three in breadth. She had also a tumour on the front of the thigh a little above the patella, of less size and hardness. The tumour in the ham, by its pressure on the nerves and vessels, had greatly benumbed the sensibility, and obstructed the circulation of the leg, so that it was very ædematous. As it appeared impossible to remove this tumour, and, as its origin and connections were unknown, amputation was resolved on. On examining the amputated limb, the tumour in the ham could only be divided by a saw; several slices were taken out of it by this means, and appeared to consist of coagulable and vascular substance, in the interstices of which a great deal of bony matter was deposited. The remainder of the tumour was macerated, and dried.

dried, and it appears to be formed of an irregular and compact deposition of the earth of bone. The tumour on the front of the thigh was of the same nature with that in the ham; but containing so little lime, that it could be cut with a knife. The thigh-bone was not at all diseased; which is mentioned, because, when bony matter is deposited in a limb, it generally arises from a disease of the bone. This case, however, shews that the vessels of a tumour may secrete phosphate of lime, and convert it into an osseous substance, without any manifest cause existing to excite such ossific inflammation.

Vascular tumours also may doubtless become converted into a substance resembling cartilage, like those found in joints; and their hardness might then exclude them from the genus sarcoma. I have not however met with such instances.

The diseases which I have been describing may be considered as edifices which are built up by diseased actions, and in which those diseased actions continue to reside. The actions-

actions themselves do not admit of examination, though the structures do which they erect. Therefore, as Dr. Baillie has observed, it is by an examination of diseased structure that we must be slowly led to a knowledge of diseased actions. It does not follow as a certain consequence, that similar diseased actions will, in every instance, produce precisely the same diseased structure; though it is highly probable that they will do so in general. This observation would diminish our surprize if, in some rare instances, we found cancer existing where a cancerous structure was not strikingly manifest; or if, in others, a structure like that of cancer was observed where no cancerous actions were apparent. The scirrhous tumours, which form beneath the peritoneal covering or lining of the uterus, have something of the structure of cancer, and yet they are not cancerous. In all cases where tumours are formed we must suppose an increase, and, in some degree, a disordered action of the vessels which form them; but in many these actions possess but little diseased peculiarity. As in every case of growth, in the re-production of destroyed parts, the VOL. IV. gelatinous K

gelatinous substance of the blood is first deposited, and afterwards rendered vascular, therefore I have considered a tumour formed in this manner as one of the most simple kind, and possessing the least of diseased peculiarity; but I am aware that I may have included under this general character tumours of essentially different natures. In the adipose sarcoma there must be some peculiarity in the arrangement and actions of vessels which form this tumour: but it must be accounted a natural rather than a morbid peculiarity. The pancreatic sarcoma, I should suppose, differed but little from the first species. It may be considered as a new growth characterized merely by the peculiarity of its appearance, in consequence of its being separated into many distinct parts, which sometimes cohere by a looser kind of texture, and sometimes are separated by a firmer substance. The connecting medium appears like the thickened cellular substance of the part in which the newly organized matter is formed. Indeed I have sometimes pressed out the separated portions of this substance from the connecting medium which environed them. In the mammary sarcoma

I suspect

I suspect some diseased peculiarity to exist, as has been mentioned in speaking of that subject. In the tuberculated sarcoma the predisposition to that disease seems general on the part of the constitution. In the medullary sarcoma the disease seems local, in the first instance, and propagated by means of the absorbing vessels to their glands, and frequently in a course retrogade to that which the absorbed fluids would naturally take: but in the advanced state of the disease the morbid disposition appears to be general. In carcinomatous sarcoma the disease appears to begin in a point or small district, and to extend in every direction, as rays do from a centre, affecting every surrounding part, whatever may be its nature. The diseased actions also, though they may be at times more violent or more tranquil, never cease. This disease is also extended through the medium of the absorbing vessels in the direction which the absorbed matter would naturally take.

# SURGICAL OBSERVATIONS.

#### ON CHRONIC AND LUMBAR ABSCESSES.

HRONIC abscesses differ from those produced by phlegmonoid inflammation in many particulars. In diseases of an active and violent nature, the contiguous parts become affected, whilst in those of an indolent disposition they remain free from disease, and unaltered in structure. An absorbent gland, for instance may be enlarged to a considerable size; yet, if the disease be of an indolent nature, the surrounding cellular substance is loose and pliant. On the contrary, if one or two of these glands undergo active inflammation, the surrounding parts participate in the affection, and all traces of the glands primarily affected, are lost in the more general inflammation and abscess. In phlegmonous abscesses, the inflammation which was most violent in the centre, and had there terminated in suppuration, had, at the same time, induced adhesion of the surrounding cellular substance; and thus, the sides of the abscess are, as it were, walled in and supported; and the extension of the disease in the circumference is to a certain degree prevented. It also appears, that it is very much owing to the parts covering the front of the abscess participating in the irritation, that the matter so readily makes its way to the surface, and is discharged.

On the contrary, in chronic abscesses it generally happens, that very little adhesion, of the surrounding substance takes place, and the matter is more at liberty to extend itself in all directions; at the same time, the parts covering it do not participate in the disease, they therefore do not inflame and ulcerate till their distension induces them to do so, and such a degree of distension may not take place till the abscess has acquired an enormous magnitude.

Now, if it could be proved, and I think it practicable, that chronic abscesses are not from their nature deleterious diseases, but are disturbing and destructive to the constitution in proportion to their magnitude, we should then clearly see, that the objects of surgery in their treatment ought to be those of preventing their increase, or reducing their dimensions.

As inflammation varies in its degree, so there are many abscesses neither strictly speaking phlegmonous nor chronic, but of an intermediate nature. I think, therefore, it may be useful to insert a case of purely chronic abscess, as an illustration of the preceding remarks.

### CASE I.

An abscess containing twelve ounces of well-formed pus took place beneath the integuments covering the upper part of the pectoral muscle; it elevated the skin, and had formed a globular kind of tumour. This suppuration had been attended with scarcely any pain, and the integuments, although distended, were indolent, and appeared perfectly healthy and natural. I punctured the abscess with a lancet conveyed obliquely between the integuments and the cyst, evacuated the contained pus, and closed the aperture with sticking plaster: but on the re-accumulation of matter it was no longer confined in a cyst, but became diffused through the cellular substance leading to the axilla, in which a slight inflammation was produced. I was, therefore, obliged to make a new orifice, and leave it open, that the secreted matter might have an outlet, and not extend disease, by thus pervading the cellular substance.

The surface of the cysts of all abscesses has the power of secreting and absorbing their contents. Even phlegmonous abscesses occasionally disperse, and many cases are on record of large abscesses, which I conclude were of a chronic nature, being dispersed in consequence of the occurrence of a diarrhæa. It appears to me, that the cysts of abscesses perform the same function with respect to K 4 their

their contents that the membranous surfaces of cavities do in cases of dropsy. In either instance, if secretion exceeds absorption, the disease enlarges; if it be equal, the disease is stationary; and if it be less the disease diminishes.

With this view of the subject, and knowing the danger arising from the opening of chronic abscesses, I have endeavoured to disperse them, and I have sometimes been successful in my attempts. As an instance of what may be accomplished, I relate the following case:

#### CASE II.

A gentleman about twenty-six years of age, consulted me on account of a very large abscess which had formed amidst the muscles of his thigh. It protruded the fascia on the front of the vastus internus muscle, from the patella to above the middle of the thigh: the posterior muscles of the thigh also bulged outwards, so as to give a considerable convexity to the back part of the limb. The patient looked unhealthy; he was languid

guid and irritable; he had a furred tongue; the actions of his bowels were irregular, and the secretion of the bile was deficient or faulty. I desired him to drink a pint of the decoction of sarsaparilla daily; to take five grains of the pil. hydrarg. every second. night, and to pay strict attention to keep his bowels regular. I also recommended a bandage to give support to the sides of the ab-However, it continued to increase, and in about six weeks the integuments at the lower part became more prominent than elsewhere, and felt heated and uneasy. Fearful of their becoming inflamed, and frustrating the plan of treatment which I designed to pursue, I opened the abscess with an abscess lancet, making a wound about threefourths of an inch in length. About thirty ounces of serous pus flowed through this orifice, but the current was very frequently obstructed by large clots of that flakey substance which is so commonly found in such abscesses. Towards the end of the discharge clots of blood obstructed the orifices, and they were so numerous and large, and came out of the aperture with so much difficulty, that

that I thought it better to close the wound, even before the abscess was completely emptied, than run the risk of irritating the sides of the wound by too much poking, or of admitting air into the cavity of the abscess. I therefore cleaned and closed the sides of the wound by sticking plasters and applied a roller round the limb. The wound healed, and the patient's health was in some degree improved. At first the cavity of the abscess filled rapidly, so that the fascia protruded again. The protrusion, however, did not increase, and the disease seemed stationary. After about three weeks the patient was permitted to take exercise on account of his health and he generally slept in the country. By these means, and with the continuance of his medicines, his appetite became good, and his bowels regular. then left off the sarsaparilla, and took the pil. hydrarg. only, when he observed that the fæces were not of a proper colour. As the patient's health amended, the abscess decreased, so that in about six months there remained no evidence of such a disease having existed. After some time, the patient went into

into the army, where fatigue and irregularity of diet made him ill again, and he perceived some fluid in the abscess. He therefore, relinquished his mode of life. On the restoration of his health, to which the use of the same medical means seemed to be contributory, no vestiges of the abscess remained; and though many years have now elapsed, no return of the local disease has taken place.

As chronic abscesses in general form in consequence of a disordered state of the constitution; and as it is subject to great disturbance when they become open, so it is requisite to endeavour to improve the general state of health prior to that event. By such means I have seen several chronic abscesses dispersed; and even if our endeavours have only the effect of rendering the abscess stationary, whilst the patient's health is improving, it is productive of great good, since it enables the constitution to encounter that disorder attendant on the abscess becoming open. Such topical applications as will afterwards be mentioned, may be employed at the same time, with a view

to render the abscess stationary, or to diminish it, by lessening the secretion into the cavity, and by promoting absorption from it. I may also add, that I have seen several abscesses, which continued to enlarge under such management in the first instance, dispersed by it, after they had been once punctured.

The foregoing remarks and cases are designed to illustrate the nature of chronic abscesses in general, and I now proceed to consider the most important species of such a disease that we meet with in practice, I meanthe lumbar abscess. Some lumbar abscesses can indeed scarcely be denominated chronic; they are formed with so much pain, the pus which they contain being good, and so unlike what is generally found in the cysts of indolent abscesses, that we must suppose the disease which produced it was of a different nature. I have seen also inflammatory fever. induced when such an abscess has become open, which was an additional proof of its being of a phlegmonoid nature. Such occurrences are indeed very rare: but it very commonly happens that the formation of lumbar

lumbar abscesses is attended with more pain, and other inflammatory symptoms, than are incident to chronic abscess in general.

Whatever the nature of a lumbar abscess may be, the surgical treatment of it must be similar to that of a chronic abscess; for as the matter presents in a part of the body which is so remote from that where it was originally formed, as not to sympathize with the disease; so the progress of the abscess, before breaking, will resemble that of a chronic abscess. To use the language of Mr. Hunter, a lumbar abscess, where it presents, is to be considered as an abscess in the part, and not as an abscess of the part.

As lumbar abscesses in general descend along the psoas muscle, under Poupart's ligament, and present beneath the fascia of the thigh, the resistance of the fascia affords an additional obstacle to the progress of the matter to the surface, so that such abscesses, if left to themselves, often acquire an enormous magnitude before they spontaneously open.

Lumbar

Lumbar abscesses also, in general are not simple diseases; they arise from and communicate with carious vertebræ; which circumstance is, I believe, the cause of their frequent fatality. The first eight cases that I attended, after I had adopted a new mode of opening them, were simple abscesses, and not arising from disease of the bone; which led me to believe, that they were more frequently unconnected with diseased bone than later experience has taught me. The general opinion of surgeons, in which I entirely concur, is, that lumbar abscesses most frequently arise in consequence of diseases of the vertebræ, and they should certainly all be treated as if such was their origin.

Before I proceed to describe the particular treatment which I would recommend in chronic and lumbar abscesses, it will be useful to enquire into the cause of that constitutional disorder, which is so generally consequent to their becoming open. It has been ascribed to the admission of air into the cavity of the abscess, or to the absorption of

pus

pus from it. That it is not owing to the former, we infer, because air does not appear to be stimulating to those surfaces of the animal body, to which it is not naturally applied. The air which escapes from a wounded lung, and renders the cellular substance emphysematous, produces no inflammation of it. Air has also been blown into different cavities of the body, to ascertain its effects; and it has been absorbed from them without having excited any inflammation. Neither does air appear to be stimulating to the exposed surfaces of ulcers which are in a state of disease. Yet, though air seems to have no stimulating property to such surfaces, and therefore cannot be assigned as the cause of that irritation and inflammation consequent to the opening of an abscess, yet it is of the highest importance in pursuing the treatment which I have recommended in these abscesses, that no bubble of air should be admitted into the cavity, because it would probably cause the putrefaction of the fluid contained in the abscess, the absorption of which would be very deleterious. To shew the consequences that might arise from such an occurrence, and to urge the necessity of all that caution which I shall recommend in opening lumbar abscesses, I relate the following case:

## CASE III.

A surgeon discharged a large quantity of pus, containing flakes, from a lumbar abscess, which presented itself beneath the fascia of the thigh. The matter was discharged through a wound made by an abscess lancet, and in holding open the orifice with probes, in order to give discharge to some coagula, a bubble or two of air was admitted into the cavity of the abscess. His assistant perceiving this occurrence, and mentioned it to me prior to the coming on of those symptoms which afterwards took place. When the abscess was emptied, the wound was closed with sticking plaster, and bound down by many straps of plaster placed over it. On the third day the patient was attacked by so violent a putrid fever, that it could be compared to no other, unless to such as is occasioned by the plague. The fascia of the thigh was elevated as much as it had been before the operation; the skin was very hot, and of a dusky

a dusky colour. On removing the straps and coverings from off the wounded part, a large blast of fœtid air burst from the aperture, which was followed by the discharge of a considerable quantity of a very offensive and bloody fluid. The patient lived but twenty hours; and, on examining his body afterwards, a considerable quantity of bloody fluid was found effused into all the large cavities.

If the notions which have been delivered respecting abscesses be correct, I mean, that there is continual secretion, and continual absorption from the cyst, as from a membranous surface, or from that of an ulcer, then it would follow, that the absorption of pus cannot be productive of fever. Though absorption of pus is continually taking place, yet no fever occurs before the opening of an abscess, neither does it come on where abscesses are dispersed, and where such absorption must indisputably have happened. It is true, in these cases, the pus is generally inoffensive in its qualities; it might be contended, that though it be admitted into the circula-VOL. IV.

circulation with impunity, yet some of the fætid matter usually discharged from the surfaces of open abscesses, being absorbed from them, might prove the cause of the fever. We do not however find such fever produced by the absorption of fœtid matter from the surfaces of large ulcers. We frequently apply the term putrid to substances merely fœtid, as well as to those in a state of chemical putrefaction; and from this inaccuracy of language, I suspect the equal inaccuracy of opinion has arisen, which has led to the belief of deleterious consequences succeeding to the absoption of matter. I need not discuss these subjects further, because the enquiry into the true cause of the fever will furnish arguments to refute false. notions.

An attentive examination of the subject will, I believe, convince us, that the fever depends upon the state of irritation and inflammation which takes place in the cyst of the abscess. First, because its violence corresponds with the degree of local inflammation. Thus, in the old method of opening chronic

chronic abscesses by an incision of considerable length, the fever was much more violent than when the abscesses were suffered to break of themselves, or when they are merely punctured. Secondly, because the kind and degree of fever accords with the state of inflammation and irritation existing in the cyst of the abscess. Thirdly, When a lumbar abscess opens spontaneously, in a manner productive of the least possible irritation to the cyst, the patient sometimes remains for many days without heat or pain in the part, and without fever. Afterwards, when the cyst has become irritated and inflamed, and the constitution disturbed by a peculiar kind of fever, the symptoms may, and generally do subside, and the patient merely feels languid, and slightly hectical. If local irritation is again excited, again the concomitant fever takes place. The cases which I shall afterwards relate will, I think, prove these assertions, and they have induced me to believe, that the disturbance of the constitution at large depends upon, and accords with the local disease. Such opinions lead to this practical conclusion, that if we T. 2 wish wish to prevent or mitigate the fever, which exhausts the patient's powers, we should do every thing to prevent and allay the local disorder, which is likely to arise in the abscess.

There seems nothing mysterious or difficult to account for, in the effects resulting from an abscess becoming open. If any of the natural cavities of the body were in the same state, inflammation would ensue, and would produce a fever corresponding to it in its nature and degree. From the weak and peculiar state of constitution, subject to chronic abscess, both the local inflammation and the concomitant fever are in general of a peculiar kind: the local inflammation partakes of what would, in general, be denominated an erysipelatous nature, and the fever of a violent and rapid hectic. I have however known the opening of a lumbar abscess productive of inflammation of a phlegmonoid character in the cyst, and then the constitutional affection was likewise what we term inflammatory fever.

Having thus endeavoured to investigate the cause of the evils resulting from a chronic abscess becoming open, I may further add, that if the opinions which I have formed of them be correct, the danger must greatly depend upon the dimensions of the abscess. A chronic abscess, beneath the fascia of the thigh, may be opened, when it contains four ounces of pus; and if the surface becomes irritated and inflamed, it may induce a degree of constitutional disturbance and fever; yet such an abscess neglected, may increase till it holds four quarts \*; and then, if it becomes open, and has the same degree of local disease, and it were granted that it should only act upon the constitution in the same proportion, it must produce more than thirty times the degree of fever. If also we are to ascribe the weakness consequent to the opening of chronic abscesses in any degree to the drain of fluids which takes place from them, it will be in the same proportion

<sup>\*</sup> I have discharged four ale-house quarts full of matter from beneath the fascia of the thigh.

greater in the latter than in the former case. It seems however probable, that it is the violent actions which exhaust the patient's strength, and not the loss of fluids; for in dropsies of the ovary a much greater loss of more nutritive fluids is not attended with weakness in any material degree.

After this discussion of the nature and cause of the ill consequences resulting from the opening of chronic abscesses, we may proceed to establish rules for their treatment. The first object, I think, is to disperse, if possible, lumbar abscesses, because it is most probable that the matter is in contact with diseased bones; and that the inflammation consequent to the abscess becoming open, will be communicated to those parts.

With this view an issue should be made in the loins, which is likely to be beneficial by its counter irritation, even when the abscess is not connected with diseased bone; but when it is, then an issue will be still more serviceable and necessary. The patient also should be kept in bed till all inflamma-

tory tendency, which will be indicated by the increase of the abscess, has ceased. Then exercise in the open air may be permitted, on account of its beneficial operation on the constitution of the patient\*. It should indeed be our unremitting object throughout to invigorate and tranquillize the constitution; and the means which I should employ for this purpose, are those which tend to preserve the digestive organs in, or restore them to a state of health. If the abscess becomes open notwithstanding all our endeavours to the contrary, these measures will enable the constitution to bear up against the disease: and as such local diseases are the consequence of a weakened and disordered state of body, they may, by relieving the cause, remove at the same time the effects, as has been shewn in the second case.

That lumbar abscesses may be dispersed by these measures, will be proved by the cases which I shall afterwards relate: that we shall

<sup>\*</sup> Probably it would be best to exercise with crutches, as the lumbar muscles on the affected side would then be exempt from action.

often fail in our endeavours to disperse them, is indeed highly probable in reason, and equally proved by occurrences in practice.

Let us then suppose, that a lumbar abscess treated in this manner continues to increase, that it protrudes the integuments, that they, from distention, become irritated; that their temperature is slightly augmented; what are we then to do? Are we to wait till evident signs of inflammation appear? I think not. I would then relieve them from distention, by emptying the abscess through a wound made by an abscess lancet. I would open the abscess for a reason which appears paradoxical on its first proposal, which is that it may be kept closed. can empty a cavity, and by healing the wound, keep it afterwards shut, and no inflammation ensues. If nature opens the cavity by ulceration, the opening is permanent, and the inflammation consequent must be endured. When I first treated abscesses in this manner, I punctured them with a trochar, I now use an abscess lancet, which is introduced with very little obliquity, so far that that the wound of the cyst of the abscess, should be half an inch in length, and that of the integuments of course a little longer. A wound of that size is generally sufficient to give discharge to the solid flakes which will occasionally block up the opening, without much poking. It is necessary that the flow of matter should be uninterrupted so that no air should gain admittance; it is therefore right to make pressure on the abscess in proportion as it is emptied. The abscess where it presents itself is emptied before that part of it in the loins is completely so. The surgeon should then press the sides of the wound together with his finger and thumb, so as to prevent the ingress of air, and desire the patient to cough repeatedly, which will impel the matter from the internal part of the abscess into that which is punctured. When the abscess is emptied as much as possible, the wound should be attentively wiped, and the edges placed in exact contact, and retained in that state by strips of plaster. I interpose some lint between the plaster and the surface of the wound, closing it exactly as that made in venæsection. I think it use-

ful to put a small compress over the part where the orifice is, and give it a slight degree of pressure by longer strips of plaster. It is of great consequence that the patient lie perfectly still, and that the plasters are not moved. I think it better not to put on a bandage, because then the patient may perceive whether the plasters are right or wrong. I dress the wound every second day. It generally unites by adhesion, though some times otherwise, for it may discharge a little, and yet unite firmly. An abscess, thus treated, is as free from inflammation as it was before it was punctured. The abscess will, however, fill again, and that sometimes even rapidly. In the first cases which I attended, I punctured it pretty regularly after the expiration of a fortnight, and I found in general, that the abscess contained about one-third less of fluid. I have, indeed, been obliged to puncture the abscess at first before the end of the fortnight, because it had become distended, and I was fearful that the distention might cause the newly healed wound to inflame, or unclose itself. After having discharged the contents of the 45

the abscess three or four times, I found that it was not necessary, nor indeed easily practicable to puncture it at the end of the fortnight, because it was so little filled and prominent. Since my attention has been more directed to the dispersion of abscesses, I have generally been able, by such means as tend tolessenthe actions, and consequent secretion of the cyst of the abscess, and also to promote absorption, to protract considerably the intervals of time at which it has seemed necessary to puncture the abscess, lest it should become distended. Nay, I have been able, to disperse many lumbar abscesses after having punctured them twice or thrice, though I was incapable of preventing their increase prior to these measures.

The dispersion of lumbar abscesses is the grand object which a surgeon should have in view throughout the treatment of them. He should endeavour to disperse them, but by means which are at the same time, calculated to increase the patient's strength. If, however, the abscess increases, and he is obliged to open it, in order to prevent its becoming

becoming open spontaneously, he should still pursue the same measures; for the necessity of his puncturing it again is thereby diminished, and he gains time, which he employs in endeavouring to invigorate the constitution, and diminish the disease of the bone, upon which perhaps the abscess depends. Suppose, however, he is unable to effect his chief design, that of dispersing the abscess; suppose after having punctured it five or six times, at long intervals, one of the punctures inflames and ulcerates; it must, I think, be evident, that great good has been effected by the measures that have been pursued. After a lumbar abscess has been punctured, the fluids secreted into it, will flow into that part where there is the least resistance, which is the part that has been punctured. The pressure of respiration will urge them from the original cavity into the now vacant space, where the abscess had presented itself. The original cavity being a long time thus kept empty, will contract into a small fistulous tube.

Those who are advocates for letting lumbar abscesses open themselves by ulceration, because it imparts less irritation to the cyst than a wound occasions, have in this case their wishes gratified; a much reduced lumbar abscess does, when treated in this manner, open by ulceration. If there be any truth in the reasoning which I have employed, shewing that the constitutional disorder will be in proportion to the extent of the surface affected with disease, that surface is now comparatively small.

It must however be granted, that under these favourable circumstances, when the abscess leads to carious bones, the disease is generally, though not constantly, fatal. Instances have been known of pieces of mouldered vertebræ making their way through the fistulous remains of the abscess, and obtaining an external outlet; and yet the patient has recovered. As we cannot know whether the bone be diseased or not, and as these abscesses so generally arise from that cause, we should always act with a caution suggested by the opinion that they

do so. When the abscess has become open by the ulceration of one of the punctures, which the surgeon has made in order to reduce its dimensions, or so to alter its state as to increase his chance of dispersing it, the patient must encounter the risque attendant on the disease; but the surgeon has still much to do. The ulcerated part should be dressed with mild salve; evaporating washes, or poultices, should be applied over it; in short every means should be employed to prevent the cyst inflaming, in consequence of irritation imparted to it from the ulcerated puncture. Perfect quietude seems to be essential at this period of the case, for motion of the loins will induce or aggravate inflammation in the original diseased parts. Sometimes a considerable time elapses before the cyst inflames, and when it does, opium should be given to quiet it. Sometimes the irritation and inflammation of the cyst subsides, and the abscess becoming indolent, the constitution is no longer disturbed, and the patient may be permitted to exercise for the benefit of his general health.

Before I proceed, to the relation of the cases, from which the preceding views of the nature and treatment of lumbar abscesses were taken, I think it right to relate the case which first suggested to me that mode of opening these abscesses which I recommend; because, it shews that an abscess of this kind, attended with even very favourable circumstances, may prove a fatal disease if mismanaged.

#### CASE IV.

A young man, about twenty-seven years of age, of a muscular form, and healthy constitution, came from the country to the hospital, to obtain relief from a collection of matter which presented itself in the upper and fore-part of the thigh, beneath the fascia, and immediately below Poupart's ligament. The pain which he had previously suffered in his loins, and the impulse of matter into the tumour upon his coughing, left little doubt of the original seat of the disease. The fascia of the thigh had yielded considerably to the collected pus, so that it did not descend so low as is common, but appeared very promi-

nent.

nent. Although he had endured considerable pain, he had not suffered much from fever on the first formation of the abscess.

A caustic was applied on the tumour to give discharge to the matter, and three days afterwards the eschar was divided. — Eight ounces of very perfectly-formed, moderately consistent, and inodorous pus issued from the incision. — The sides of the eschar now closed up the wound and prevented any further evacuation of matter. This the surgeon did not attempt to produce, thinking the delay would be useful.

For three days no more fluid was evacuated, during which time the young man remained perfectly well, and his thigh free from inflammation. — On the fourth day the eschar became so much loosened in its circumference that part of it gave way, and eight ounces more of similar and perfectly inodorous pus were discharged. In twelve hours after this detachment of the eschar, he suffered much from fever and pain in the part, and the discharge became putrid. In two days the fever; which

which was of the hectic kind, seemed to be established, and from the sore there flowed a copious and increasing quantity of fœtid pus. His skin was now hot, his face flushed, he sweated profusely in the night, his appetite failed him, his pulse beat 120 in a minute, his tongue was but little altered from its natural appearance, he had no sleep, and was distressingly restless. -- These symptoms continued about a week without cessation; they then appeared slightly to remit, and proceeded for three weeks in the same manner, with some little diminution in their severity; his strength was now greatly exhausted, the discharge from the abscess very profuse, and in this state it was thought right to have him conveyed into the country, where I am informed he gradually declined, and in about six weeks more he died.

Cases of Lumbar Abscesses dispersed without being opened.

# CASE V.

I was desired to visit a young lady in the country, in order to open a lumbar abscess, vol. iv. M which

which presented beneath the fascia of the thigh. It was not, however, sufficiently prominent to admit of the introduction of a lancet with safety, but there was a very forcible impulse of matter into it when the patient coughed. The patient was about fourteen years of age; her lumbar vertebræ were bent into more than a semicircle, and it is certain that a great number of the bodies of the vertebræ were destroyed by disease. The countenance was flushed, the pulse 120; the body emaciated, and the appetite lost. In short, it appeared to me, and the other medical attendants, that she was not likely to live. I explained to her father, that the opening of the abscess would be almost certain to destroy her; that if a necessity arose from its increase, it might be punctured at a future period, only in order to prevent its being permanently open. I endeavoured to explain to him the necessity of attempting to relieve the disease on which the abscess depended. With this view I recommended rest, and a horizontal position, except when exercise in a carriage was permitted for the benefit of her general health. A moderate-sized blister was also directed

directed to be kept open, by means of the savine cerate on each side of the spine. Great attention was also paid to improve her health, by obviating errors in the functions of the digestive organs. The patient lived at a considerable distance from London, and I received during about fifteen months, frequent letters from her father, containing little else than expressions of exultation and thanks. His daughter's appetite was improved, and her strength increased; the hectic fever had left her: the abscess could no longer be perceived; she had become quite fat and robust, and had grown two inches in stature within the twelve months. After this time, the tone of his letters varied. He thought the discharge from the blisters might produce weakness; and, I believe, they were not continued for any considerable. time, though I urged it as strongly as I could. The young lady, however, recovered and had no return of the abscess.

## CASE VI.

A man between thirty and forty years of age, came from the country to St. Bartholomew's Hospital, on account of a lumbar abscess, which had made its way outwards, and protruded the integuments of the back, on the left side of the lumbar vertebræ. The skin was very prominent, and the circumference of the abscess considerable. I think I do not exaggerate, when I say, that twelve ounces of pus were collected in the external abscess. The patient was feeble, and of a sickly aspect, and I thought that the bone was diseased. I desired him to remain in bed, and to keep open a moderate-sized blister on the left side of the loins; endeavouring, at the same time, to produce, by means of medicines, an amendment in his general health. In about two months there was no appearance of any external abscess. The patient was now desired to get up daily, and walk in the open air, but to lie on the bed when he returned. He remained in the Hospital pursuing these measures for two months longer;

longer; and though there was not the least appearance of the abscess during this period, I could not perceive much amendment in his general health or appearance. Indeed, as no good seemed to be done by his residence in the hospital, I advised him to return into the country, requesting him, at the same time, to inform me of the progress of his complaint or recovery; but I never afterwards heard of him.

I was induced to put down this brief account of the preceding case at the time, from the surprize which it excited in my mind, as I had expected it to proceed in a very differ-Later experience would preent manner. vent me from feeling surprize at such occurrences, for I have seen several lumbar abscesses dispersed by similar measures; I mean, counter irritation, and endeavours to improve the patient's health. Though I could relate the circumstances from memory, and even refer to some of the subjects of them, yet the narrative would be little more than a repetition of the fact, and it might tend to induce students to expect such occurrences

to be frequent; whilst, on the contrary, I am ready to admit, that they probably will be rarely met with in general practice.

Cases of Lumbar Abscesses that have been dispersed after their Contents have been discharged.

#### CASE VII.

— Harris, thirty-five years of age, had a considerable collection of matter beneath the integuments of the abdomen, forming a moderately prominent tumour, about three inches in diameter, and situated just above Poupart's ligament. The patient had suffered a great deal from pain in his loins; and the motion of the thigh had been much impeded, but was now tolerably free. Indeed there was no doubt that the matter had been originally formed in the loins; from whence it was violently impelled, so as to elevate the prominent integuments of the abdomen, whenever he coughed. — By permission of Mr.

Mr. Long, under whose care he was admitted into the hospital, I punctured the tumour, and discharged about 24 ounces of pus, mixed with some flakes of a curd-like substance. The wound healed readily, and no considerable alteration of his health ensued, though he found himself weaker for some days after the operation. — At the end of a fortnight, I made a second puncture, and let out between six and seven ounces of a turbid fluid. He now thought himself so much better than after the first evacuation, that he went out of the hospital; but returned again at the expiration of a fortnight, when, by a third puncture, six ounces of purulent matter where discharged; and, after another week, four ounces more were let out. A caustic was now applied to his loins, and four or five peas used to keep the ulcer open; from which time no matter could be discovered in the abscess during the six weeks that he remained in the hospital.

About eighteen months after this, he was admitted into the hospital on account of a fever

fever and sore throat; and it appeared he had never experienced any farther complaint in his loins.

This case, I think is very interesting, inasmuch as it contributes to prove that the cavity of a lumbar abscess may be entirely obliterated without the cyst undergoing any of those changes which generally take place when it is laid open.

# CASE VIII.

Elizabeth Smyth, aged twenty-seven, had a lumbar abscess, which presented beneath the fascia of the thigh. The previous symptoms rendered the nature of the complaint indisputable; and as she not only shewed evident marks of a scrofulous habit, but also felt considerable inability in moving the spine, there was great reason to suspect that the abscess originated from a disease in the bone. She was likewise troubled with cough, and drew in very little air when she inspired.

Her

Her appetite, too, was often deficient, and her bowels frequently disordered. It may also be added, that her brother, who greatly resembled her, was at this time a patient in the hospital, under Mr. Long, on account of a scrofulous disease of the spine, which had occasioned an affection of the medulla spinalis. When all the circumstances were taken into account, she certainly appeared a subject by no means capable of sustaining the irritation and disorder which the bursting of a lumbar abscess might be expected to produce. I therefore punctured the abscess immediately, and discharged from it twenty ounces of flaky matter: and having healed the wound, I gave her emetics of vitriolated zinc and copper, and afterwards of ipecacuanha, twice or three times a week, for six weeks. At the end of this time, there was so little matter in the abscess, that I thought it too small to be punctured with safety; and as her health was too infirm to admit of the emetics being continued, I tried to produce absorption of the remaining matter, by passing the electric fluid through the abscess.

Very

Very small electric shocks\* were accordingly sent from different parts by the side of the lumbar vertebræ, down to the groin, and upper part of the affected thigh; and, under this treatment, the contents of the abscess soon disappeared; nor did any further collection of matter take place during the time of her remaining in the house, which was nearly two months. The electricity also brought on the menstrual discharge, which for a long time had been very irregular; and her general health was greatly improved before she left the hospital. †

- \* These small shocks, which, for the sake of distinction, I shall call electric vibrations (a term, I believe, generally applied to them), were made by discharging a small jar, the coated surface of which did not exceed fourteen square inches: and by placing the ball of the electrometer at a small distance from the conductor, generally about a quarter of an inch. One of the discharging rods was then moved about on the upper part of the thigh, and the other on the loins, so that the electric fluid might pass through the abscess.
- † I have lately heard, that the abscess has not appeared again, though a year has since elapsed; but the pain in her loins has, (as might have been expected) recurred.

## CASE IX.

Elizabeth Hart, about thirty years of age, had suffered greatly from pain in her loins, for ten months. During that time, matter had been formed, and made its way down beneath Poupart's ligament, in such quantity as considerably to distend the fascia of the thigh. Shewas much reduced in strength, and in the appearance of health, by this complaint; but as her constitution was good, and she could move the spine with facility, there was no reason to suspect any disease of the bone.

I punctured the abscess, and discharged two quarts of very healthy pus: and occasionally, after the orifice had closed, I ordered her emetics. She could not continue them regularly, however; as, during their use, her bowels became disordered, and she lost her appetite and strength. The accumulation of matter was, notwithstanding, evidently delayed by them; for when, at the end of three weeks, I next punctured the abscess, only one quart of serous fluid was evacuated.

evacuated. After the space of a month had elapsed, another quart was discharged. During this time she had taken emetics occasionally; but her health was far from good, and the pain in her loins was still considerable. — I had now witnessed the beneficial effects of electricity in the case of the last patient, and resolved upon trying it here. It was accordingly employed three times a week, for three weeks. At first a small collection of fluid in the abscess was perceptible; but this was gradually absorbed; and by the end of the third week, there was no longer any pain in her loins, her health was greatly improved, and she was able to walk about, without the least appearance of her former complaint. She was therefore discharged from the house; but came once a week, for some time, to be electrified.\*

The two last cases point out to notice a remedy that is likely to be of much advantage in the future treatment of lumbar abscesses. My experience of it, however, has

<sup>\*</sup> This patient remains at present in perfect health; nor is there any reason to expect a relapse.

not yet enabled me to determine how far it may be generally beneficial. In one instance where I employed it after the abscess had been once punctured, it kept the matterfrom collecting for a long time; but the patient growing tired of the confinement, and apprehensive lest the lancet should be again employed, left the hospital without my knowledge. - Of another, and somewhat analogous disease, in which it was tried, though not with complete success, I shall here relate the particulars; first remarking, that all the observations which I have made on electricity applied to diseased parts, lead me to conclude, that it acts as a stimulus, which has the peculiar effect of accelerating that process which happens to be going on at the time. — Thus, in some states of inflammation, it hastens suppuration, whilst in others it promotes dispersion. We should therefore always endeavour, previous to the use of this remedy, to bring the tumour or abscess into that state in which its progress is stopped, and in which, perhaps, it is rather inclined to recede; and by this rule I have

have been guided in the application of this remedy to lumbar abscesses.

I have also been attentive to proportion the number and strength of the vibrations to the effect which they appeared to produce on the abscess: their operation seemed to be most beneficial when they occasioned a kind of irritation or slight uneasiness in the part for a short time after their application. But if this sensation amounted to pain, or if it was of too long continuance, I then suppose that the stimulus had been employed in too great a degree.

# CASE X.

Israel Brooks, aged twenty-five, about two years ago, was first seized with violent pain in his loins, which prevented him from either riding or walking for some time. About three months afterwards, he had the rheumatism in the joint of one of his fingers, which shifted to his wrist, where it produced a thickening and disease of that part; and at present, all the carpal bones are evidently diseased, and displaced. This disease also

also attacked his left knee, where it occasioned an enlargement of the joint, which still continues. Two months after this, he discovered a swelling beneath the glutæus muscle, which has gradually increased; and since that time the pain in his loins has become much less severe, but a sensation of great weakness remains. This abscess was shewn to me at the hospital, as an instance of a remarkably large one; and there was no doubt but that it contained between two and three quarts of matter. There was also a prominence of the fascia on the front of the thigh below Poupart's ligament, accompanied with evident fluctuation. The several gentlemen, who examined this latter tumour, thought they could perceive an impulse given to it from within, whenever the patient coughed; whence it was supposed to have its rise from a lumbar abscess: but whether the abscess under the glutæus muscle communicated with the loins or not, we were unable to determine, as no such impulse could be felt in it.

I gave the patient emetics of vitriolated zinc and copper; and kept up an eruption

of pimples on the skin covering the abscess, by rubbing it with a strong solution of tartarised antimony. Gentle electric vibrations were also daily passed from the loins through the front of the thigh, and also through the glutæal abscess. By this treatment, continued for two months, the tumour was very much reduced in size; that is, as far as could be judged of by the eye; for its situation prevented any accurate measurement of it. In spite of our endeavours, however, the patient's health had declined since his admission into the hospital; and in proportion as he lost strength, his other local complaints became worse. — As it was now summer-time, and he had an opportunity of going to the sea, which had formerly been of service to him, I punctured the glutæal abscess without loss of time, let out three pints of healthy pus, and then healed the opening. His weakness increased considerably after this discharge, and all his other complaints were much aggravated. electricity was still persevered in; and at the end of three weeks, the quantity of matter in the abscess was very small; I cannot suppose it was more than eight ounces. — I very much wished to have had an opportunity of making fresh punctures in this case; but the state of the patient's health obliged me, however reluctantly, to discharge him from the hospital.

I have always found that abscesses, evacuated in this manner, filled again to one half or two thirds of their original quantity in the space of a fortnight: so that here also, the beneficial effects of electricity are, in my opinion, sufficiently manifest.

Of late years I have not, however, employed the measures pursued in the cases above recorded, but trusted altogether to such as seemed calculated to improve the health, by tranquillizing and invigorating the digestive organs. The result of such management has been, that, in general, the abscess has disappeared for a considerable time, after it has been two or three times punctured. After the lapse of some time, however, one of the punctures made for the discharge of the matter has unclosed, vol. IV.

either with or without some trivial collection of fluid previously being formed in the cavity; and, I regret to add, that of late, in general, the disease thus circumstanced, has terminated fatally. Yet, I think, it will be admitted, that abscesses which open in this manner, open in a manner producing the least possible irritation to the constitution; and that the previous treatment, which they have undergone, has materially tended to diminish the risk commonly attendant on such diseases. I conclude then by relating one case of lumbar abscess, treated in the manner which seems to me best. which terminated fatally, as an example of what, I fear, will be the frequent termination of such cases. I will add, however, several cases, to shew, that lumbar abscesses, when open, are not necessarily destructive diseases, and to suggest the treatment which ought to be pursued under such adverse circumstances.

Of Lumbar Abscesses becoming permanently open.

### CASE XI.

James White, aged twenty-five years, came from Essex to be admitted into St. Bartholomew's Hospital, on account of a lumbar abscess. He had suffered much from pain of his loins for twelve months: and for some time past had experienced a difficulty in lifting up his right thigh. There was a curvature in the dorsal vertebræ; but that, he informed me, was an old complaint. Yet, from the general appearance of the man, from the difficulty he had in moving the upper part of the trunk upon the lumbar vertebræ, and from the caution with which he attempted this motion, I could not but suspect a disease of the spine. Issues were therefore made in the loins: and on the 25th of June, I let out two quarts of purulent fluid from beneath the fascia of the thigh. had less pain in his back after the operation: and though he was teased with a cough, his strength did not suffer any diminution. On July N 2

July 7th, I discharged from the abscess fourteen ounces more, of a turbid brownish fluid. On the 17th, though the tumour in the thigh was inconsiderable, yet the part first punctured was elevated and inflamed. It seemed that the puncture in the integuments had healed, while that in the fascia had not united firmly, but had suffered the matter to pass through it, so as to elevate the skin. To remedy this which threatened to lay open the cavity of the abscess, I was obliged to puncture it in another place; and eight ounces of fluid were discharged. The patient was now in much better health than he had been for more than a year, and was able to lift up his thigh without pain. I therefore set him to exercise the muscles in the neighbourhood of the disease, thinking that if the exertion did not produce irritation, it might answer a good purpose. With this view, he stood upon the leg of the sound side, and alternately lifted up and let fall the other, until he was somewhat fatigued. By frequent repetition of this exercise, the muscles of the diseased side acquired considerable strength; and in a little time he felt himself (to use his own expression) "able to go "to plough."

The fascia of the thigh was punctured every fortnight for some time, and afterwards every three weeks. When he had been nearly three months in the hospital, he became tired of the confinement, and, feeling himself strong, was very solicitous to have the abscess opened, and suffered to discharge itself. The disease of the spine made me unwilling to comply with his desire; and I sent him into the country for three weeks, that he might ascertain, by the journey, whether he was as strong as he supposed; thinking that if he bore it without fatigue, it might be of service to him. At the same time, I gave him strict injunctions not to exert himself if his loins or thigh became painful; and, in that case, to return again by the first conveyance. It was five weeks, however, before he came back: when I found that the abscess hadinflamed, and burst, about twenty days after he left town; in consequence of which he became so ill, that he could not bear removal. He was now in a most wretched N 3

wretched condition, being scarcely able to turn in bed, from the weak and painful state of his loins; his pulse was rapid, and his skin hot, and he had occasionally fits of chilliness succeeded by sweating. He became considerably better, however, and continued so for some time, in consequence of the attention paid to him in the hospital; but his health again declined; and after several relapses, with intervals of temporary amendment, he at last sunk, and died at the end of three months from his re-admission.

On opening the body after death, I found that the abscess extended upwards to some diseased vertebræ. The diseased bone, however, did not immediately come into view on lifting up the peritonæum; for the tendinous expansion, which covers the bodies of the vertebræ, was still entire and formed a kind of cyst distended with matter. When this was opened, it was found to contain pus, together with the fragments of three of the bodies of the lumbar vertebræ; there being ten or twelve detached pieces of bone lying upon the medulla spinalis, and surrounded with matter. This was evidently a peculiar disease

disease of the spine, which neither caustics nor any other remedy could alter. It greatly resembled that diseased state which some times occurs in the carpus and tarsus, in which the small bones composing these parts are broken down, and lie confined in a ligamentous capsule, surrounded with matter. If the dead portions of the vertebræ had not been thus confined, they might have had some chance of removal; but under the circumstances already noticed, it is most probable that they would remain, and act as extraneous bodies, exciting irritation, and increasing the disease.

### CASE XII.

July 1790. John Tucker was admitted into St. Bartholomew's Hospital on account of a Psoas Abscess. His health had been declining for more than three years. He had for a considerable time been an out-patient under the care of Dr. Austin, who had unavailingly endeavoured to prevent the formation of this abscess by issues made in his back, and by the administration of various medicines. He had suffered greatly from pain in

his loins and fever: the abscess was very large, and had descended very low on the inside of the thigh; the integuments covering it were natural; the impulse of matter into the tumour upon coughing very considerable.

His pulse was feeble and beat eighty-six in a minute; previous illness had exhausted his constitution; he had a constant cough, and undoubtedly much diseased lungs. — He had little appetite, and was of a costive habit — he was of fair complexion, light hair, and blue eyes, and his countenance frequently flushed: — He was on all these accounts as unfit a subject, as can well be supposed, to encounter the derangement of constitution, which must succeed to the ordinary evacuation of the abscess.

On Wednesday the 28th of July, I tapped the abscess with a small hydrocele trochar, and discharged three pints of pus of good quality, although in a small degree more fluid than common. I dressed the part with considerable caution. I moistened the lint which I applied to the orifice with tinctura benzoës

benzoës composita, over this I applied some sticking plaster, which was retained by cross slips, and afterwards varnished over with gum; some compresses of linen were applied over the abscess, and gently bound on by a flannel roller.

On Thursday, there was no very perceptible difference in his health — he had slept and eat as usual, his tongue was moist and natural, his pulse a few strokes quicker.

On Friday, he said, that he found his loins relieved by the evacuation, that he could perceive no difference in his health, and his pulse was the same as before the operation. For many days his health remained unchanged, he became, he thought, a little weaker, and the frequency of his pulse had encreased about four strokes in a minute. For this little alteration we could readily account, knowing that some fluids were drained from the circulation into the cavity of the abscess, and that some little exertion of the system would necessarily ensue.—The abscess remained without pain, or inflammation,

mation, and his constitution free from fever; his skin continued in its natural state, his appetite was good, his sleep sound, and his countenance unaltered. Three days after the operation I removed the dressings from the punctured part; it appeared healed; I however, carefully removed the dressings every third day.

Friday, the 13th of August, sixteen days after the first discharge, the tumour having become prominent, I again punctured it, and evacuated its contents. I knew the discharge would encrease his weakness; yet, if the collection were suffered to remain it would shortly distend the cyst to its former dimensions, and my original plan of treatment would be frustrated.

The quantity of the discharged fluid was nine ounces; in appearance and chemical properties it much resembled blood. This bloody effusion was probably the consequence of laxity of the exhaling vessels, as there had not been the least expression of inflammation in the abscess. Before I discharged

charged the matter the second time he complained of some pain in his loins; but the following day he said he was much relieved, and found himself remarkably well. This second puncture was dressed like the former, and quickly healed.

During the time which had elapsed between the first and second discharge, he had not been confined even to the ward, but often went from the hospital to see his friends. This, his cough, the weak state of his health, his disinclination to live in the hospital, and the obvious impunity with which it was done, induced me to permit. After the second evacuation he altogether lived with his friends, promising to come every week to let me see the state of his complaint; however, the second week when the matter ought the third time to have been evacuated, he failed in his promise. I was now obliged to leave London for some time, so that I did not see the patient again until September the 8th, which was four weeks and five days from the former evacuation: he had rerefused to have the matter let out during my absence.

absence. I now discharged in like manner ten ounces of lymphatic exhalation, rather dark coloured and turbid, as if mixed with true pus. The man, during the last week, had complained of pain in his loins and in his knee, both of which were relieved as usual by the operation.

Before the abscess was firstopened the impulse of matter from the loins, on coughing, was extremely forcible, but was now not atall perceptible. It appears to me that a very considerable advantage is derived from this mode of treating these complaints. Whatever secretion is made in the abscess of the loins, will, by its gravity, descend into the space left by the seceded fascia of the thigh. The abscess of the loins being left perfectly free from distention will most probably contract to very little dimensions, if it be not perfectly abolished. Hence in the subsequent treatment of these complaints you have only to attend to the disunited fascia; whilst the cavity in the loins scarcely deserves notice.

September

September 22d, a fortnight after the former evacuation, I discharged four ounces of similar serous fluid mixed with pus. During its evacuation, which was very speedy, I had applied my fingers beneath Poupart's ligament, as if to obstruct the descent of any matter from the loins. I then desired the man to cough, but no matter descended, and the collection appeared to me entirely confined to the thigh.

I found some difficulty in introducing a trochar, when the abscess contained so little fluid. This was remedied by first introducing a lancet through the fascia, and then conveying the trochar through the aperture made by the lancet.

Thus after discharging the matter four times, the complaint was reduced from a lumbar abscess, containing three pints, to a small collection of matter beneath the fascia, containing four ounces. — What communication this had with the loins, and what was the state of parts there, cannot be determined.

mined. To appearance there was no collection. If I had now immediately opened the abscess, the containing cyst being small, the inflammation probably would not have been considerable. But the state of the man's health induced me for a short time to defer this final attempt, this radical cure, as I may express it, and to be contented with only evacuating the matter when collected, without suffering the collection to increase the size of the cyst. It might be expected, by repeating the evacuation, that the cavity would diminish to its total abolition. This would probably happen were the abscess in the cellular substance: but the inelastic fascia cannot contract, and the subjacent muscles cannot be elevated, so that the effused matter, though very small in quantity, would still keep them disunited.

I had let out four ounces of matter once in October, and on the 5th of November I opened the abscess by an incision about an inch and a half in length at the lower part. I introduced my finger beneath the fascia as high as Poupart's ligament, I desired the patient

patient to cough, but no matter descended from the loins, neither could I ascertain any communication. The extent of the detached fascia was about four inches and a half in length, and nearly four in breadth. The cyst inflamed after opening. The hardness and quantity of the discharge encreased for four days, and then gradually subsided. His thigh was stiff and sore, so that he could not easily move it, but he had no particular pain in his loins—his pulse did not vary—his tongue was not furred—his sleep was not interrupted—nor could any derangement of his health be perceived.

Granulations grew from the edge of the incision, and the opening nearly closed and afforded scarcely any discharge. —Yet, on introducing a probe through the orifice, I found that the fascia remained disunited. With a view to produce an union, by exciting inflammation, I introduced a seton from this lower orifice to the upper part of the cyst. The fascia again inflamed, indurated, and united, only the track of the seton was unclosed; and this by the injection of some spirit

spirit and water, was also soon induced to fill up. In discoursing with the patient, after opening the abscess, respecting his health, he said, he was ten times better than before it was opened; that until this time he had always been subject to fits of pain, and to a state of weakness and faintness which he could not describe.

After the perfect closure of the abscess, he could extend and bend his thigh with freedom and ease; he could also readily put his foot upon a chair set before him. This it would have been impossible for him to have done during the formation or continuance of the abscess. This freedom of action in the psoas muscle indicated considerable soundness of it, and of the contiguous parts. He still, however, complained of much rheumatic pain in his hips, and sometimes in his loins; and as I supposed his constitution might be affected by the suppression of a long-continued purulent discharge, and, might attempt for its relief the formation of a new abscess, I inserted two setons in the integuments of the loins, with a view

of preventing inflammation of the internal parts.

They did not, however, relieve his pains; he complained much of their inconvenience, and as he designed to go into the country, they were discontinued. I saw him about a year afterwards — no alteration had taken place in the thigh, nor no fixed pain had attacked the loins, but he was still much teazed with unsettled rheumatic pains.

The preceding case was very unfavourable both from the patient's constitution and from the degree of the disease. Yet, by four times discharging the matter, which was not attended with much more pain than bleeding, it was reduced from a lumbar abscess, containing three pints, to a small collection beneath the fascia of the thigh, containing four ounces, and without any evident communication with the loins. Each time, instead of suffering inconvenience, he experienced relief; he had no fever, neither was he restrained from his usual occupations.

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The final opening might have been sooner made, but as this was the first case in which I had pursued this practice, I was uncertain of the event and irresolutely protracted it for two months, in expectation of amendment of his health. When it was opened no perceptible fever followed, and it shortly got well by the treatment which I have related.

### CASE XIII.

Isaac Dean, thirty-seven years of age, had come from Hampshire to London, to obtain advice for a Psoas Abscess. He was admitted into the hospital under the care of the late Mr. Pitts. The account which he gave of himself was, that his business had obliged him to be much on horseback: that he had formerly, when riding, bruised his left testis, which accident had occasioned an incurable disease of that gland; he therefore had suffered its removal about two years since in some county hospital. Since that time he had frequently suffered much pain in his loins; about eight months before his admission into the hospital he had caught cold; the pain in his loins then became more violent and

and constant, and much impeded the motions of his left thigh. About three months after this attack of severe pain, he perceived a tumour in the upper part of his thigh, which had gradually increased until the time of his admission into the hospital. Since the appearance of the tumour, the pain in the loins had much abated. The matter now descended about four inches beneath Poupart's ligament; and it received a forcible impulse when the man coughed. The fascia of the thigh at this part was very prominent, and the skin covering it was more red than the rest of the integuments.

The patient's health was not unfavourable; his pulse was rather strong, beating seventy-six in a minute, his tongue rather pale, his hair and eyes dark.

Monday, 3d of October, 1790, by Mr. Pitts' desire I introduced a trochar into the lower part of the tumour, and gave discharge to twenty-four ounces of pus, moderately tenacious, and containing some flakes of firmer matter: I cautiously closed the 0 2

orifice, as in the former case, applied a compress, and bound it moderately tight with a roller.

I could not in this case perceive any alteration in the man's health deserving to be recorded, except that the pulse was a little quickened; he eat and slept as usual.

I carefully took off the sticking-plaster at the end of three days, and renewed a similar dressing. On Thursday, 13th of October, the abscess was now again prominent, and the puncture made by the trochar seemed slightly inflamed. As I concluded the distention of the fascia caused this inflammation, and supposing that if the pressure of the matter from beneath was suffered to continue, it might occasion it to ulcerate, I determined to prevent this effect by again evacuating the matter. This I accomplished by passing a trochar into the lower part of the abscess, at some distance from the former opening; and by this means discharged between eight and nine ounces of pus, thinner and rather darker coloured than the former, but not tinged 12

tinged with blood as in the preceding case. I now carefully dressed both orifices, and again applied a bandage.

I cautiously removed the dressings, at the end of three days; the second puncture had healed, and the first had lost its disposition to inflame. After having dressed the punctured parts, and applied the bandage; I desired him to moisten it with ag. saturn. which I thought by keeping the skin cool, would prevent its disposition to inflame. The man suffered no alteration in his health from this second evacuation. On the 25th, at the end of a fortnight, the tumour being again prominent, I introduced a lancet into the fascia, and through the orifice thus made, the trochar, which discharged six ounces of turbid serous fluid, and I pursued the same subsequent mode of treatment.

After another fortnight had elapsed the tumour was much less prominent than before, and there appeared a degree of irritation in the skin. The punctures shewed a disposition to inflame. I now desired the man to cough,

but could discover no impulse of matter from the loins. This I had not before done, lest the exertion should affect the punctures, which were not so firmly healed as in the former case. As the patient had not suffered much from discharge, as his health seemed fully capable of sustaining the effects arising from opening the abscess, as it was not probable that its dimensions could suffer further diminution by delay, on Friday the 23d of November, I opened the cavity by an incision of about an inch in length, at the lower part, and immediately passed a seton through to the upper part, with a view to insure the union of the fascia.

An unusual degree of inflammation of the fascia and stiffness of the affected limb followed, but he complained of no particular pain in his loins further than general stiffness. The slight fever which accompanied seemed rather inflammatory than hectical, his pulse became a little quicker and harder, and his tongue slightly furred. These symptoms gradually abated, and at the expiration of three weeks the fascia appeared to have adhered

hered firmly to the subjacent parts; I therefore withdrew the seton.

As he now found his health tolerably good, and being, as he thought, recovered from what he considered as a dangerous complaint, and imagining that he was made weaker by staying in the hospital, he went into the country, promising to inform me if any change happened; but I have not since heard of him.

## CASE XIV.

February, 1791. James Leaver is in the 21st year of his age, has light brown hair, blue eyes, dilated pupils, pale countenance, frequently flushed, and is apparently of an irritable constitution. About nine months ago he was affected with a pain in his loins when he moved, which soon became very severe, even when he was at rest. This pain was accompanied with fever. Four months afterwards he perceived a small swelling in the upper part of his right thigh, which has since gradually increased, and has now descended nearly to the middle of the thigh. 1 3

he remarked, that he never had the least pain in the part where the tumour was formed. After the appearance of this swelling, he no longer experienced the same degree of uneasiness in his loins; and shortly after, he acquired the power of lifting up his right thigh, which he had for some time lost.

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For four months previously to his admission into the hospital, he had regularly profuse night sweats, which began about twelve o'clock, but did not prevent his sleeping; when he awoke he found his cloaths very wet, and himself very chilly; he had, however, an appetite for his breakfast.

On the 5th of February, Sir James Earle introduced a trochar into the most prominent part of the tumour: between two and three pints of healthy matter was evacuated, the wound was immediately closed, and lint and adhesive plaster were applied. The night succeeding the operation he slept little, but was free from perspiration. On each succeeding night he slept as usual, but had not in the least degree those sweats which had been

been constant until the discharge of the matter. A second of the matter of the matter

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On the 8th of February, he said he found himself no worse for the operation, he was free from night sweats and slept soundly. His appetite was perfectly good, his bowels unaffected, and his tongue moist and florid. His pulse before the operation, was ninety, and for fifteen days afterwards it varied between that and a hundred. February 15th, ten days after the evacuation, his night sweats returned, although in a less degree than formerly.

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February 26th, three weeks after the first discharge, the tumour hadnow become nearly of its original size; the integuments were much distended; the part punctured by the trochar had for three days appeared inflamed; and on the tumour being now compressed, the cicatrix gave way, and the contained matter oozed from the orifice. The trochar was again introduced through the former orifice, and eight ounces of brownish matter discharged. The wound was carefully

fully dressed, in hopes that as the distention was taken off, it might close. After the second evacuation, the night sweats again ceased; he said, he was rather weaker, but no other alteration in his health was perceived.

On the 2d of March, while in the act of coughing, the imperfectly healed wound made by the trochar gave way. Very little pus was discharged, but as it was impossible to heal this ulcerated opening, and as the continuity of the cyst was now destroyed, the mode of treatment hitherto pursued was frustrated. Much inflammation of the cyst immediately took place, and the constitution became greatly affected. The next day, if the finger slightly compressed the abscess, it gave him great pain; but before the cavity of the abscess became exposed, the part was perfectly indolent. When pressure was employed, a fætid, frothy matter issued from the ulcerated orifice. The cyst, however, was emptied, and, except when pressed, there was no discharge. Such were the appearances of the part. The general disturbance

of the constitution was also very great; his countenance exhibited strong expressions of alarm; if any one approached him he started, and when any one touched him he trembled. His pulse beat from 130 to 140 in a minute — for two days his bowels were disordered — however, the inflammation of the cyst gradually abated, and in like manner the constitutional derangement subsided. At the end of about eight days, he was much amended, and in about six weeks the abscess appeared nearly well, and his constitution relieved from febrile indisposition.

In this case it is clear, that the second discharge of matter was too long delayed, and to me it appears equally evident that the patient derived much advantage from the mode of treatment which had been pursued; for by it the complaint was reduced from a large abscess, containing nearly three pints, to one which held less than eight ounces. Yet, even in this diminished state, great derangement of the constitution followed the exposure of the cavity of the abscess: indeed, I have little doubt, if the abscess had been opened

opened whilst it retained its original dimensions, but that the patient would have fallen a victim to the more extensive inflammation, and more violent fever, which would then have taken place.

## CASE XV.

Elizabeth Ridley, aged fifty-five, had, for one year and a half before her admission into the hospital, suffered much from bad health: she then had a severe cough, accompanied with much fever. About ten months before she was admitted into the hospital, she had a very acute pain in her loins, which abated, in some degree, ten weeks after its first attack; at that time she observed a tumour in her groin, which had gradually encreased in size. The pain had been continual, though at intervals it suffered considerable abatement: the veins on the fore part of the thigh had become varicose and the leg ædematous. The tumour was of a circular form, about four inches in diameter. - It had much protruded the fascia, and matter was violently impelled into it on coughing. She now complained of occasional pain of her

her stomach, of failure of appetite, and a costive state of her bowels; her pulse was slow and feeble, her tongue pale, and her health considerably beneath the natural standard.

On the 8th of November, I punctured the lower part of the tumour with a lancet, carrying it obliquely about half an inch between theskin and the fascia, and discharged eleven ounces of good pus, but did not empty the abscess. The orifice of the skin and cyst did not then correspond, and on coughing there was still perceived a considerable impulse of matter from the cavity in the loins. - I was unwilling to irritate the cyst by the introduction of any instrument to separate the lips of the wound, therefore I closed the orifice with sticking-plaster, and every thing remained quiet till the third day, when, by a fit of coughing. the orifice was burst open and matter oozed from beneath the plaster. If I suffered it to remain open, my original plan of treatment would be frustrated. I therefore resolved to let out the collected matter. lest distention of the fascia and integuments should

should prevent the wound from healing. I again introduced the lancet through the same orifice, and wounded it so as to make it bleed and give a discharge to five ounces of pus; the abscess, however, did not even now appear to be completely emptied.

The woman suffered no evident alteration in her health, but became much easier with respect to her loins. The varicose veins and the ædema of the leg now no longer appeared. These symptons, doubtless, originated from the pressure in the loins, occasioned by matter, of which it was very evident there was a large collection.

On the 18th, the tumour was again punctured and eight ounces of fluid evacuated. The matter before had been incompletely discharged; now I believe the tumour was entirely emptied. This last discharged matter was perfectly inodorous and the thigh uninflamed. I made this aperture at the side of the tumour with the edges of the lancet upwards and downwards, and not transversely as the former openings had been made.

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This I did that the efforts employed in coughing might have less effect in impelling the matter through the orifice, which soon healed.

In the following week she complained that she was restless and could not sleep, neither had she her usual degree of appetite; her pulse, however, was not quickened, nor did any other signs of constitutional indisposition appear. No matter was now collected beneath the fascia, and afterwaiting another week without any apparent collection being made, on the 25th of November I introduced alancetthrough the fascia of the thigh, with a design to leave the cavity of the abscess permanently open. I did not perceive any matter issue from the opening. As the integuments covering the fascia were thickened and shewed some disposition to inflame, I directed the aqua plumbi acetati to be applied to them. On the following day some matter flowed through the orifice. The patient supposed, if collected, it might be a table spoonful; nearly the same quantity continued to discharge for about a fortnight, and afterwards it gradually diminished. diminished, and the wound healed. She was not affected by fever in consequence of this last opening, and seemed to suffer very little inconvenience with respect to her health. She, however, complained much of pains resembling those of the rheumatism, which affected principally her hips, though sometimes they attacked her loins; for these pains she was placed under the care of the physician, and as her constitution was languid, she was recommended to continue the medicines prescribed for her as an out-patient.

In this case one circumstance appeared to me curious; after I had twice discharged the contents of the abscess, no father collection of matter took place. Yet not because the cavity of the abscess was abolished, but because from some little indisposition of the constitution the secretion into that cavity was for a time suspended. This, however, was rather an advantageous circumstance, for as the cyst was empty, the contraction of the sides was unopposed.

# CASE XVII.

Charles White, thirty-six years of age, and not unhealthy, had a lumbar abscess, which presented beneath the fascia of the thigh, and which there was no reason to suppose connected with any disease of the spine. From this abscess, I discharged, by puncture, twenty-four ounces of healthy pus, and healed the orifice. The patient suffered some weakness and derangement of health; but they were not considerable. The operation was repeated every fortnight; and, by the fifth time of performing it, the quantity had decreased to four ounces. At the end of another fortnight, I made the opening to discharge the matter, larger than common, and did not attempt to unite it, but directed a poultice to be applied to the thigh, and the patient to be kept in bed. perceptible derangement in his health took place in consequence of this. The lips of the wound granulated, which, I think, is always a good sign; the fascia seemed to adhere to the parts beneath; and in the course of a month he was thought well enough to VOL. IV. leave leave the hospital, although there was still some matter discharged from the wound. In a few weeks more, the part was entirely healed; nor had he afterwards any return of the complaint.

### CASE XVIII.

William Hankes, when about twenty-eight years of age, had a collection of matter formed in his loins, which descended beneath Poupart's ligament, and elevated the fascia of the thigh. The formation of this matter had not been attended with pain; neither were the motions of the thigh impeded during its collection. The elevated portion of the fascia was about three inches in length, and two in breadth; and the impulse communicated to it from the loins, on coughing, was distinct though not very forcible.-I punctured the abscess, and discharged twelve ounces of pus, in which there were some flakes of coagulum. The wound healed speedily, and the patient not only suffered no inconvenience, but even found himself better than before the operation.—After three weeks' time, the matter which was collected

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gave so little prominence to the fascia, that, when I punctured it, I was apprehensive of injuring the subjacent parts; and not more than between five and six ounces of pus flowed from the orifice on this occasion -As the quantity of matter contained in the abscess at first was small when compared with that in many other cases which terminated well, as the patient also was young, and apparently capable of sustaining the degree of irritation likely to ensue, I thought there was no great risk in leaving the orifice unclosed. Accordingly a poultice was applied over the part; and I hoped that, by thus endeavouring as much as possible to lessen inflammation about the wound, I might prevent any considerable degree of it from taking place in the cyst. For some time the fascia felt sore. and was painful when the integuments were pressed; but this tenderness abated in about tendays; the discharge also lessened, and there appeared ground to hope that the patient would soon get well. He was now attacked with pain in his loins, accompanied by fever: the discharge also increased, and had a fætid smell. The symptoms, however, gradually abated. P 2

abated, but left the patient greatly reduced in strength. After a short interval, he again experienced a similar relapse and recovery, by which his weakness was still farther increased. He had been occasionally troubled with cough, which now became very constant, but without any expectoration; and I observed that he drew in very little air when he inspired. — As the abscess discharged largely, and the strength of his constitution was rather declining, I made a large issue in the integuments of his loins, with a view to lessen the internal disease. This seemed to be of great service; for the pain of his loins went off, and the discharge from the abscess abated gradually, and at last became inconsiderable. Still, however, he did not recover his health; and the country air was now recommended by Dr. Latham, who had prescribed for him, during his illness, those medicines which his disorder seemed to require. He accordingly left the hospital, and, at the end of ten months, returned to town; when the wound in his thigh still continued to discharge a small quantity of matter. wards

wards, a thickening of the integuments on the front of the thigh took place; and two or three small ulcers formed there, which did not readily heal, but were sometimes in a better and sometimes in a worse state. - I saw him occasionally, for two years, during which time he had tried the effect of sea-bathing. His health, however, was not good, though it did not appear to me to suffer from the remains of the abscess, which neither occasioned pain, nor hindered his walking. At last, his strength declining, he was again admitted into the hospital, under Dr. Latham's care. He was now much troubled with cough, and hectic fever; and, under the fascia of the other thigh, opposite to the dorsum of the ilium, a fresh abscess appeared, which, however had no communication with the abdomen. The powers of his constitution were now evidently broken, and he gradually sunk, and died.

Being greatly hurried during the only opportunity I had of inspecting the body, my examination of it was very cursory. I can, therefore only say that both lungs

were irregularly and generally indurated; that the cavity of the original abscess still remained opened, but was contracted into a narrow fistula leading from the thigh to the middle of the psoas muscle. There was another large abscess on the opposite psoas muscle, which had not yet descended to the thigh, where, as has been already mentioned, there was also an abscess of considerable magnitude, but unconnected with this in the loins. The lumbar vertebræ were perfectly sound.

That the death of this man was not owing to the original abscess in the loins, is to me very evident. That abscess did, indeed, for a considerable time, greatly disturb his constitution; but it afterwards became indolent, and acquired a state incapable of exciting irritation.

### CASE XIX.

Having unfortunately lost the minutes which I took of the next case that occurred in the hospital, I can only give such a general account of it as my memory supplies. The subject of it, Doods King, who was un-

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der the care of Mr. Blicke, was about thirty years of age, and of a very sickly aspect. The abscess presented beneath Poupart's ligament: it contained at first about 20 ounces of curdly matter, and was punctured four times, with the usual progressive reduction in the quantity of matter discharged: but before the fifth time of opening, one of the punctured places ulcerated. There was indeed, from the beginning, in this case, a great disposition in the skin to inflame and ulcerate, and it was with difficulty I could heal the orifices made to let the matter out. As soon as the cavity had thus become open, a poultice was applied to the part, and confinement to be strictly enjoined. The patient became somewhat weaker, but no fever ensued. I did not suffer him to go about, however, for a long time, lest the motion of the parts should induce inflammation. The abscess at last became perfectly indolent itself, and unirritating to the constitution; but it did not shew much disposition to heal. - He was discharged in this state, and promised to apply again if his complaint became troublesome. I saw him about a month after his

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dismission,

dismission, when he mentioned a design of going into the country; since which I have not heard of him.

### CASE XX.

Catherine Vallance, nineteen years old, of a healthy appearance, but having a considerable inclination of her body forwards, from a former disease of the dorsal vertebræ, had, for twelve months before I first saw her. laboured under severe pain of her loins, accompanied with fever. There was at that time a large lumbar abscess, the matter of which had descended to the upper part of the thigh, where it distended the integuments, so as to render them prominent and thin. A surgeon pricked this tumour with a lancet, and let out more than a pint of very healthy pus; by which the bulk of the swelling was scarcely diminished: but as no more matter would flow, a piece of sticking-plaster was applied over the orifice. Four days afterwards, another surgeon, observing that the integuments were inflamed, and the punctured part much disposed to ulcerate, made another another aperture, at some distance from the former, and discharged three pints of good pus; which completely emptied the cavity. The last puncture being attentively closed, healed readily; and the first lost its disposition to ulcerate. The young woman continued perfectly in health for ten days, when some little distention of the abscess again occurring, the first puncture ulcerated; in consequence of which the collected matter made its way out, and left a permanent opening into the cavity. Considerable fever now came on, the patient's pulse was rapid, her tongue white, and her skin hot and dry; but these symptoms abated after a short time, and she again recovered her former state of health; the abscess not falling into any secondary state of disease after the inflammation went off; nor did any hectic fever take place after the first derangement of the constitution had subsided.

Another abscess now presented itself, in the same situation, on the opposite side. As soon as this had acquired sufficient prominence to give security to the parts beneath, it was punctured; twelve ounces of healthy pus were let out, and the orifice was closed. When the matter collected again, the wound, made to discharge it, was suffered to remain open. The inflammation which took place in the cyst in consequence of this, was very slight, and hardly affected the constitution: the parts soon became indolent, discharging but little matter, and both the abscesses healed gradually.

It is now three years since that case occurred; and I have lately seen the patient, who has experienced no inconvenience from the complaint since that period.

## CASE XXI.

A young woman had a lumbar abscess presenting in the upper part of the thigh, from which a surgeon discharged, by puncture, nearly a quart of matter, and healed the opening. At the expiration of a fortnight, a second puncture was made, and twelve ounces of matter let out. The last orifice was closed like the first, but after a few days

it ulcerated, and the cavity of the abscess became exposed. The patient now growing veryill, was admitted into St. Bartholomew's Hospital. Her pulse was weak, but not deficient in strength; her tongue white, and her skin hot and dry: the discharge from the abscess was not great, but the pain of her loins was very severe. A large poultice was applied to the thigh; and the common saline mixture, with small doses of antimonials, was given. In the course of a week, a considerable change took place; her pulse, though still quick, was rather feeble; her tongue moist, and not furred; and she had frequent perspirations without any evident cause; the pain in her loins abated considerably, and the discharge from the abscess became copious, thin, and fœtid. She now began to take the Peruvian bark, and in the space of a month gradually recovered from this state of debility. Having acquired strength enough to sit up, and to walk a little about the ward, she one day imprudently went into the air, and walked until she was much fatigued.

The consequences of this were, a return of the pain in her loins; with quickness and hardness hardness of her pulse, white tongue, and hot and dry skin. As the pain and fever went off, they were succeeded by an increased discharge from the abscess, and irregular perspirations, which gradually abating, the abscess at length became indolent, and no longer affected the constitution. Warned by her former experience, she now took exercise very cautiously; and when she found she could bear motion without exciting irritation in the abscess, she went into the country, where she regained her health; the abscess healed, and she has since continued perfectly well.

When a permanent opening is made in a lumbar abscess, the part generally falls into a morbid state, and this is accompanied by a sympathetic affection of the constitution, corresponding in its nature with the local complaint. In the first of the two cases just now related, both the local and constitutional disease were of a more purely inflammatory kind, than in any other that I had ever seen, nor was it succeeded by that ill-conditioned state of the sore, accompanied with a thin fœtid discharge,

discharge, and hectic symptoms, which so frequently occur in this disorder. In the second case, as the patient's general health was tolerably good, the disease in the beginning approached to the nature of common inflammation, then gradually acquired the usual state of these abscesses, but afterwards became indolent; the sympathetic affection of the constitution exactly corresponded to the state of the abscess. At first the fever was inflammatory, then hectical; and when the local complaint became indolent, the general state of the patient's health was no longer affected. These circumstances still more strongly appeared after the accidental re-excitement of the inflammatory symptoms.

In order further to confirm the foregoing opinions, I may add; that I have known a considerable space of time elapse, between the first bursting of a lumbar abscess and its assuming that morbid state which is so peculiar to those diseases, and which produces a corresponding affection of the system in general.

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